

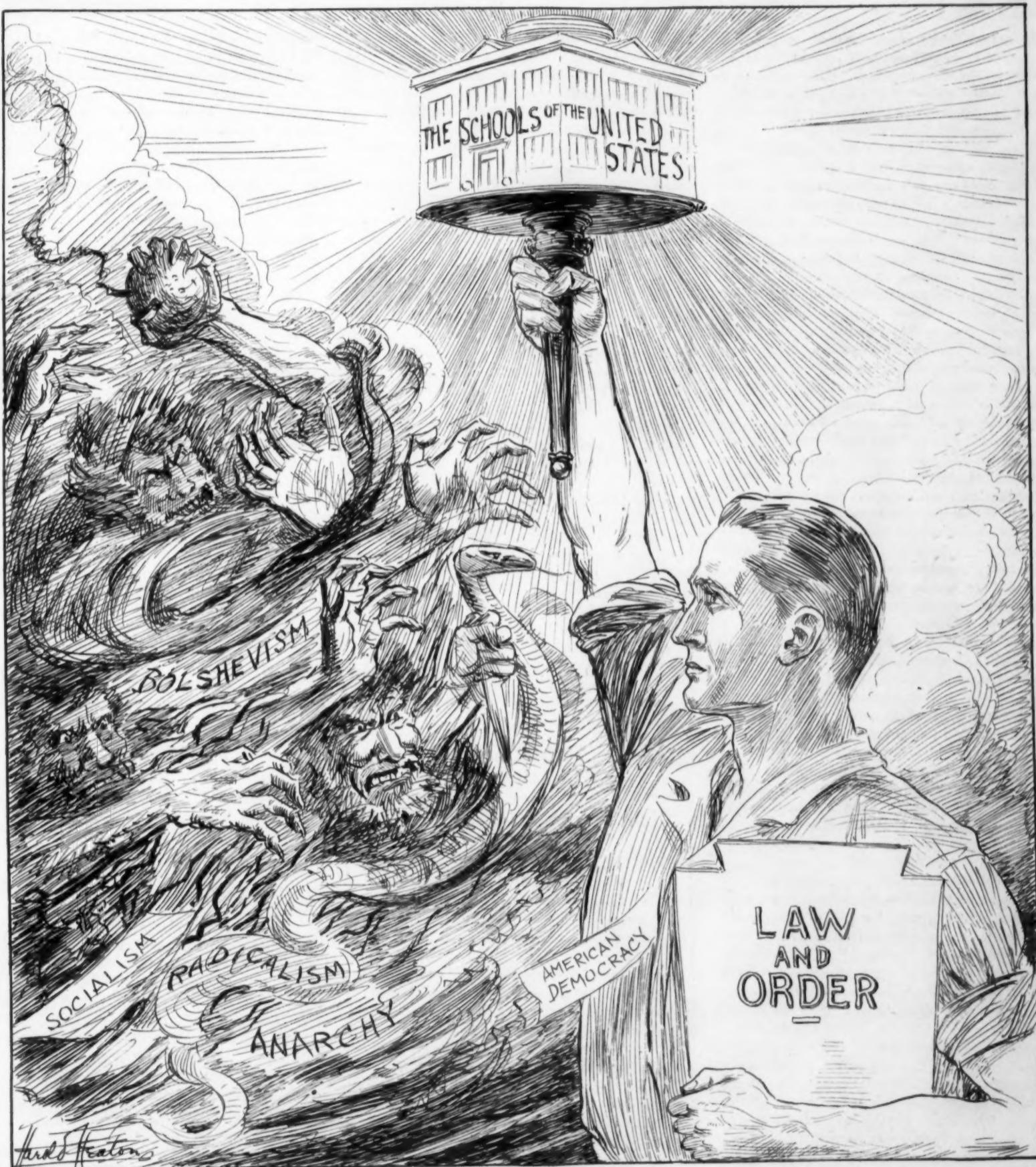
# THE AMERICAN School Board Journal

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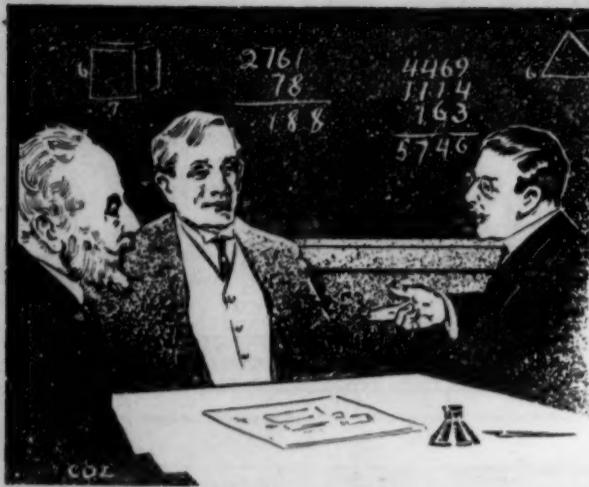
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A BULWARK AGAINST THE POWERS OF DARKNESS.



## Some Difficulties in Rating and Grading Teachers

Chas. A. Wagner, Superintendent of Schools,  
Chester, Pa.

The demand for standardization of processes and output is extending itself into new and into smaller industries and into more and more varied production processes, and the work of the teacher is being put on such a standardization basis so generally that questions are arising for which no general and universal answer has yet been found. For instance, it is admitted that teaching products can not be measured like a yield of potatoes as so many bushels per acre, nor like the product of a weaving loom as so many yards of cloth per week or day, nor like the piece work of many factories. The outcomes of teaching are spiritual and elusive; they can not be measured in terms of any material unit whatever: this may be granted, and still the question remains, are there not some material accompaniments of these inner or spiritual effects which can be seen, measured or counted and in some degree be regarded as the index of the extent to which the inner or spiritual result is being attained? The belief that such is the case is the final support for the rating of teaching work, and points to the fact that outward, material manifestations or accompaniments must be the criteria for rating teachers. Therefore the existence of such manifestations as indices of spiritual processes will be assumed.

Generally the rating of teachers is into classes or groups, as class A, class B, Class C. Degrees of excellence in certain enumerated points are marked, and the summary of all the marks on all the detailed items of the grading rubric, fixes the classification. Almost every system of teacher rating has its own rubric. Qualities included in one rubric are omitted in another. Into this problem as to what are the proper items to include in such a rubric this discussion will not be permitted to stray. Instead an answer will be given to the much simpler problem. As to any quality or item included in the list of qualities on which teachers are to be marked, what is a practicable system of marks or degrees, and how shall the distinction of degrees be recognized?

Numerical values, whether in a scale of 10 or of 100 appeal very strongly to many superintendents or supervisors. They are rather easier to give, they can be summed up so easily, they can be averaged or "meant" so attractively. A definite judgment of quality expressed in a series of descriptive terms is much more helpful to the teacher being rated and to the supervisor who is rating: if 95 to 100 means excellent, why waste brain energy trying to decide whether the mark should be 95 or 96 or 98, or perchance 95.5 as some most conscientious markers insist on grading values. The word requires a definite judgment, which acts on the teacher who is being judged and reacts on the supervisor who judges in a way that nearly every one understands. The word is definite and is more nearly limited to a definite meaning. Teachers who are being rated by such a system compare their marks and the difference of a point or two

causes more or less bitterness among the teachers and often gives the teacher with the better mark, even if but a point or two better, an assumed ground for superiority and for easy complacency. If words, what words shall be employed? The preference of the person who is to rate the teachers must be seriously considered. There is no one series which has all the advantages. The series, Unsatisfactory, Fair, Good, Superior, permits the use of capital letters and admits of close enough distinctions to satisfy any but a caviller for meticulous distinctions.

What shall be rated as "unsatisfactory"? Failure to secure and maintain in a schoolroom the conditions necessary for the attainment of the purposes of the school. Any school would be rated "unsatisfactory" which lacks any of the essential qualities, orderliness, industry, courtesy, individual participation in school work. Without any of these we can not have a school, altho there may be a group of persons sitting before desks with books open before them. Orderliness accompanies the growth of a feeling of desire for order; industry manifests the growth of a sense of obligation to perform the assigned task; courtesy indicates growth of the sense of regarding others as having rights and opportunities; individual participation recognizes the dependence of the "good of the whole" on individual effort. Each of these the school can and should inculcate in each child thru the school activities. The person who is to grade the teacher can easily detect the presence or absence of these qualities.

"Fair" will therefore mean the attainment of all of the first group of qualities to a perceivable degree, and "good" will signify that results are satisfactory; that is so far as the supervisor discovers there are no suggestions for him to make for improvement of the work. If the supervisor must make many suggestions, the work is not above "fair." Of course, if the suggestions of

the supervisor are not used, the condition can be but one thing, namely "unsatisfactory." In entire fairness to teachers, especially to quite young teachers, when the supervisor is disappointed with results of any teacher, he would do well to withhold judgment (except "fair") and give suggestions and directions to overcome the trouble. After the suggestions have been given "unsatisfactory" will be the only mark to give if the suggestions have not been carried out. This is but another way of saying, let your first expression of judgment of new teachers err, if at all, on the side of taking more time to make up your judgment.

The use of the word or degree "satisfactory" occasions much difficulty to some teachers. Because the supervisor made but few or perhaps no suggestions these teachers feel that they should have been rated "superior." "Good" or "satisfactory" should be reserved for the condition where the supervisor finds nothing to suggest, where he has no plans or devices in mind that would help to better results. If the judgment of the supervisor acts cautiously here, the use of the last term, "superior" will admit of a use more potent than any of the other marks, namely, of use to recognize and reward the originality of teachers. "Superior" or excellent must mean the contribution of plan, idea, device, interest, support to a degree not required by the rules nor by the suggestions of the supervisor. It must represent the teacher's use of her individuality, her ingenuity, her resourcefulness to start something that has not been suggested, so that the supervisor on discovering the new idea in practice shall exclaim, "Good, good, where did you get it? I want all of our teachers to get that, Will you show it to them?"

The chief advantage of observing this distinction is that the supervisor frees himself of the moral and intellectual obligation to supply all the "growth" for the system. It is all right for him to be alert and to contribute all he can, but his contributions will set up the condition that if the suggestions are not carried out he must rate the teacher "unsatisfactory," and "fair" or "good" if carried out successfully. A system thus has a chance to grow better by the exercise of the combined ingenuity and study of the entire corps of teachers. Teachers can not resent this discrimination since it meets the chief objection to supervision, namely that supervision destroys the individuality of teachers. Here supervision is opening the door for the freest and most varied exercise of originality and individuality of the teacher. If ever we succeed in imbuing a corps of teachers and a superintendent with this point of view we shall find the most vigorous system of schools attainable; it will be not merely as strong and as good as the superintendent, but it will be as strong and as good as the best capability of its superintendent and teachers combined. That will be overcoming some difficulties of rating and grading of teachers.

### THE FINANCIAL PROBLEM.

In the purchase of education, as of any other commodity, the city gets just what it pays for, in fact, every educational problem is fundamentally a financial problem. The most important duty of members of the board of education is to estimate the amount of money needed for the operation and maintenance of schools and for the housing of school children in hygienic and up-to-date school buildings; to see that the money is spent in such a way as to obtain the maximum of education both in quality and quantity for the children of the community and to avoid any possible waste or injudicious spending of public funds.

—Carroll R. Reed, Superintendent of Schools, Rockford, Ill.

# The Need for the Substitution of a Cooperative Type of School Organization for the Present System

Lotus D. Coffman, Dean of Education, University of Minnesota, Minneapolis

A crisis in the affairs of nations tests the foundations of existing institutions. During such times the revolutionist, the reformer, and the reactionary, each in turn brings forward his cures for institutional ills. The chief danger is that common sense will not get a fair hearing. The unscrupulous demagog and the misguided sentimentalist make their specious appeals in behalf of the oppressed, while the stolid conservative harks back to the good old days when there was no unrest or instability. One does quite as much harm as the other and neither, in the long run, can divert the stream of progress far from the channel in which wisdom and good sense have directed it.

There are those who insist that politics, religion, industry, and education will never again be what they have been, and so they will not; but the changes that are taking place and those that are impending in education cannot be brought about by destroying our educational superstructure, digging up its foundations and casting to the four winds and high seas the traditions of the schoolmaster. There are those on the other hand, who are urging us to exercise speed in dropping back into the grooves of custom. Each of these is receiving a hearing, each has its inning. The dissatisfied malignant reformer maintains that the only cure for the ills of democracy is more democracy while the encrusted conservative maintains that change is sought simply for the sake of change. The conservative is unwilling to accept the challenge of the new world because all his experience has taught him that innovation may be accompanied by chance failure or calamity. He fears change; the reformer fears tradition. The result is that both become critics and both are likely to be controlled more by their emotions than by their judgments.

These two classes are found among the teaching population. There are those who insist that the schools must be reorganized. Admit it. There are those who insist that there is still much virtue in the present system. Admit that also. Both are true. Old lines of social cleavage are being cut across and new conditions and new problems lie ahead awaiting disposition or solution. A new order can be formed only out of the disintegrating elements of the old order.

## Is New Organization Needed?

Before we permit the present system of school organization to be revolutionized we must ask ourselves, What is the organization of a school system for? What is its primary purpose? Until these questions are answered satisfactorily we shall continue to have what we now have—a school system which is architecturally a mosaic. Many answers are being given to these questions. Recent comments from certain quarters lead me to believe that a new organization is desired by some grade teachers to get rid of supervision, to secure shorter hours, and more pay, and to have control of the details of operation. Not any one of these remedies puts the emphasis where it belongs. We do not need to get rid of supervision. It would be a calamity to do so. Next to better trained teachers the greatest need of public schools is more supervision, but it must be of the intelligent, cooperative type. To demand a new organization for the sake of reducing the working schedule, cannot be justified if a recent investigation which shows that teachers put in from six to eight hours a day upon their work, both in and out of school is correct. In-

creased pay we must have, but it must always be accompanied by increased preparation and better service. To plead for control of the details of operation involves the setting up of a form of dictatorship which must inevitably result in class hatreds, class dissension and inefficiency. A very clever demagog addressing a group of classroom teachers recently said that ability and sound judgment are not characteristic of supervisory and administrative officers. He declared that only mediocre persons will be found in such positions and that they hold them by being creatures of the capitalistic boards of education. He said that initiative, resourcefulness, real ability and sound judgment are found among the teachers only, and that because of this they should take over the control of the schools. The teachers cheered these statements and sentiments most vigorously. Such statements and sentiments are absurd. Neither stupidity nor talent belong to a particular class or group. The man who utters them is guilty of intellectual degradation which should be shunned and feared as much as physical degradation. Let me say without further comment that class consciousness is to be commended, but that a desire for class dictation is the most insidious virus in American life today. If persisted in, it will result in institutional instability and insecurity. To be sure wrongs must be righted, unreasonable autoocracy eliminated, and unfairness and injustice protested and corrected. Changes must come but they should come as the result of intelligent planning. Teachers are entitled to and should receive more of a voice in school affairs than they have had in the past. They however must not forget that the way to convert is to convict by the preponderance of the evidence. That individual or that class that fixes its attention upon ends that it desires for its own sake, whether the class be teachers or supervisors loses sight of the fundamental purpose for which schools are organized.

## The Basis for Cooperative Organization.

A school is organized in order that it may be instructed. Whenever the element of instruction is removed a school ceases to be a school. Every device, every detail, every working schedule, every salary, every teacher, every supervisor must be evaluated in terms of the excellence of the work. *Better conditions for work can be justified only on the ground of better work.* With this as a guiding principle we have an intelligent basis for cooperative planning and cooperative organization.

It must be admitted that this principle has not always been kept in mind. There have been instances when the advice, assistance, and co-operation of teachers have not been solicited or welcomed. Such instances are usually evidences of incompetency and autoocracy. No teacher or class of teachers owes allegiance or support to an incompetent chief. Loyalty to the profession, loyalty to the ends the school serves, must always transcend and supercede loyalty to incompetent leadership. But in general superintendents, principals, and supervisors are chosen not because of their weaknesses, but because of their strengths. They are teachers who have demonstrated their worth and their value in the classroom. One of the chief reasons why so many have sought administrative and supervisory positions is that these positions have been the only road to promotion open to them. This tendency can be counteracted only by regarding teaching as a career and by rewarding it accordingly. Not merely must the general level of salaries be increased, but some of the ultimate rewards, in

the form of the highest salaries paid, must be open to the classroom teacher. This will be true when we fully recognize that there must be equal pay for equal service. Then there will be no distinction between salaries in the grades and salaries in the high schools. Note that I say provided that the service is equal. Two teachers teaching in the same grade or the same subject may differ greatly as to their work. Our slogan will not be equal pay for equal work if by that we mean merely equivalence of position but equal pay for equal work of equal worth. With this as a designating purpose and as one of the fundamental tenets of a cooperative plan of organization, grade teachers could exalt teaching to a plane it has hitherto not occupied. Untrained and inefficient teachers would be compelled to seek training and to become efficient.

## Higher Salaries vs. Better Teaching.

The tragedy of the school situation in the United States is the lack of training of hundreds, of thousands of teachers and the growing insistence that the untrained and inefficient shall be as well paid as the trained and efficient. This country is giving less attention to the training of her teachers than any of the great nations of the world. Many are now drawing salaries whose competency and fitness for the work they should do can be justified only by the wildest stretch of the imagination. This weakness cannot be remedied by suddenly thrusting power into their hands. Just as the right of suffrage makes a trained intelligence a duty, so the opportunity to cooperate in plans for the improvement of the schools makes training an obligation and a responsibility. Democracy cannot be cured by the exercise of suffrage alone any more than aliens can be Americanized by giving them the right to vote. Relief from inefficiency and low salaries must come, if indeed it can only come thru an aroused public sentiment for more public support for the schools. This sentiment must be aroused by the combined efforts of all the school officers. No one group can do it, no one group should do it. I venture to say that thru our united efforts the day will come when students will be subsidized while they are taking their training for teaching. That day will come when the public recognizes that the best brains are none too good for teaching. This nation pays men while students at West Point and Annapolis, to prepare for the battles of war; of more importance in the generations to come we hope will be the problems of peace. Their solution depends upon an intelligent citizenry, and intelligent citizenry depends upon intelligent teachers and supervisors. The higher we raise one of these the higher we raise the other. In this lies hope and safety of the principles and ideals for which we have fought.

## Cooperation and Class Action.

The mere presence of opportunities and the securing of rights will not necessarily make a given class any better. So far as the schools are concerned the compelling influences for improvement should come largely from the teachers themselves. They hold a strategic position. They can, if they wish, advocate and secure a program of organization in their respective school systems that will insure adequate and fair representation for the consideration of all questions of policy. I for one have great hope and great confidence in the sound sense and intelligent judgment of the great body of teachers. I have faith that they will keep before them the question, "What can we do to make better Schools?" And that they will not be deceived by plausible promises nor lured by false gods.

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When teachers who are teaching three and one-half hours a day strike or threaten to strike when they are asked to teach four hours a day because conditions require it, when teachers insist upon double pay for twenty minutes overtime on an already short day, when teachers resort to court to secure the dismissal of a supervisor without using the regularly established agencies, and when such things are discussed in hotel lobbies or printed in the papers or magazines as illustrations of proper procedure, it means that no effective form of organization has been secured. More than that it means that such conduct, if persisted in or if it becomes widespread, will weaken and eventually destroy public confidence in many of the things for which teachers are seeking amelioration. There is a limit beyond which freedom of action ceases to be a virtue. Self-direction is one of the inherent privileges of democracy but so are duty and obligation also. The individualism of the doctrinaire or a special class in violation of established modes of conduct is the most serious menace we find today. To think and to act in cooperation with others, to base conduct upon the collective judgment of all the interested parties, to secure solidarity of action by mutual understanding and thru common avenues of intercourse, is the only safe remedy.

To be more specific, teachers and supervisors and administrators instead of magnifying their individual or class grievances and attempting to influence and control each other thru forms of coercion,—a doctrine which the world has been spending millions of money and human lives to free itself from—must meet together upon a common ground and thru discussion and evidence arrive at a common conclusion, which will serve as a basis for action.

Such an organization involves a council which includes representatives of the various groups.

### The Course of Study as an Illustration.

Take such a matter as the making of a course of study. Everyone knows that in the past courses of study have been handed over ready made to the teachers. The point of view of administrator and teacher differ greatly as to the course of study. The administrator is con-

cerned with the selection of materials, the teacher with the grading of materials; the administrator thinks in terms of the logic of the subject, the teacher in terms of the psychology of the subject. The administrator is interested in the adjustments which the school is making with the world outside, the teacher is interested in the adjustments being made in the world inside the school. The administrator's relation to teaching is impersonal, the teacher's relation is warm, intimate and personal. A course of study prepared by the typical administrator is skeletal and schematic in character. A course of study prepared by a typical teacher is full of devices, helps, outlines and tricks of the trade. So far as the teaching act itself is concerned, the typical administrator is ignorance twice removed, and so far as contacts with the world outside are concerned the typical teacher is ignorance twice removed. The administrator has eyes turned in the direction of the number promoted or failing and the amount of material covered, while the teacher has her eyes turned in the direction of the individual child. Administrative adjustments tend to stay put, teaching adjustments are constantly changing in light of varying conditions of childhood. A course of study prepared by either of these classes must be viewed with suspicion. Each needs the help and the check of the other.

But why should there be a course of study at all? A course of study like every other device of the schools should result in better teaching. It should be a constant source of growth in power, in ideas and in inspiration both to teachers and to administrators. It should be an ever present problem. It must be subject to constant modification. Committees representing both groups must be kept organized collecting new devices, new helps and assembling new literature. A course organized by cooperation will include not merely a skeleton but a statement of aims, a list of problems so stated as to stimulate the curiosity of the children, typical lessons, helpful methods and lists of references.

The days when courses are to be prepared by a single individual with scissors and paste are passed. Over any course prepared by an

administrator teachers should be privileged to exercise a veto power. And over any course prepared by teachers alone administrators should have veto power. The same principles should govern the making of courses of study and all the relations that teachers and administrators have with each other that govern the relations which teacher and pupils have with each other. In each case there must be a community of interest and an organization which will insure it.

### Organization Must Include All.

The illustrations which I have given are intended to make clear my general point of view. I do not believe that in the future all good things will be handed down from above nor do I believe that all good things will come from the bottom up. I do however believe that the most effective structure of representation in common council is that which is built from the bottom up and includes all, and is capable of indefinite expansion. A sound warning was recently uttered on this point in the following sentence: "Representative institutions in themselves no more insure real self-government than the setting up of a works' committee of employes in a factory would mean that the workmen ran the factory. The distinction between representation and effective responsibility is constantly ignored." Teachers cannot escape the responsibility fixed by the traditions of their calling. On the other hand knowledge and growth depend upon organization. But when we are once members of the organization it does not mean that there will be no more serious disagreements. We all hope that there will be because progress can be made only by disagreements. But when the organization has been effected and the rules of the game have been laid down, we'll fight out our differences, we'll solve our problems face to face. We'll play the game and we'll play it not for personal gain or class glorification but to improve ourselves and our work. We'll play it to leave behind us worthier standards and more wholesome traditions for the next generation of teachers than those which we inherited.

Not forgetting that we are pioneers on the outskirts of childhood, we'll play the game in the interest of children whose cause we serve.

## TEACHER PARTICIPATION IN SCHOOL ADMINISTRATION

Miss M. C. Harris, Minneapolis, Minn.

In the great upheaval of the past five years, that mighty surge of hitherto unseen depths in the world's waters, two great principles ride the storm securely; first, that the voice of the many must really count in the counsels of those who govern, and second, that knowledge understanding and sympathy are essentials for successful democracy. They are not new ideas, but they have been held up before the eyes of the world in the arguments for the League of Nations, and those who deny them either seek selfish aims at the expense of others, or have no faith in the goodness of common humanity.

I said the voice of the many must *really count*—not merely be heard and disregarded. There have been sometimes autocratic methods in school administration even under a semblance of democracy. I have known a principal to appoint a committee, allow it to spend much time in making an investigation, and when the report embodying its best judgment was brought in, cast it aside and thus nullify completely its work. I have no sympathy with such camouflage. It is worse than a waste of time. I would much rather take a clean cut order than be asked my opinion only to have it flouted. I do not advocate such participation by teachers

in school administration. What I do advocate and thoroughly believe in is a real conference of administrative officers with representatives whom the teachers choose, a conference in which there is mutual respect, and weight is attached to the opinion of both sides, so that both contribute to the outcome of the conference. Such an attitude on the part of school officials toward teachers certainly comes nearer to our ideal of the schools of a free people. And where is it more necessary that the world be made safe for democracy than in the schools? We all admit, do we not, that it was thru her schools, managed by the same dictatorial methods as other departments of her government—I know, for I have seen the subservience of the teachers over there—that Germany built up that military machine that has appalled mankind? It is thru our schools that we must build up and keep triumphant the mighty forces of democracy, but we can only succeed if we teachers are fearless and independent in maintaining our convictions, and if we can feel that our collective judgment is respected.

I said, too, that knowledge, understanding, and sympathy are essential to a democratic regime. People who do not know one another are suspicious, but acquaintance, the realization of common aims, and friendliness, dispel that feeling.

It was in the belief that there should be some means by which the teachers in a large city system, such as ours in Minneapolis, might know and understand the administrative officers, and in turn be known and understood by them; in the belief, too, that from those who are in direct contact with the children would come most valuable suggestions, that we began in 1912 to seek the formation of an advisory council. After investigation of the two or three councils in other cities which existed then, and much discussion by a committee from the various teachers' organizations, a plan was formulated and put into operation in January, 1915. This has been changed in several respects, each time with a view to more representative membership. At present the council is made up of the following personnel:

The city is divided into five high school districts. Each district sends six grade teachers and one high school teacher to the council. Of the six grade teachers, one represents the first grade, one the second, one the third and fourth combined, one the fifth and sixth combined, and two the seventh and eighth, including the special teachers. There are also the following representatives: One for all the kindergarten teachers of the city, two for the grade principals, one high school principal, one from the girls' vocational high school and one from a

group made up of the seventh, eighth, and ninth grade teachers of the junior high schools. Thus there are 41 members. These are elected in September each year and since March, 1917, have met once in six weeks during the school year at a dinner meeting. It was one of our long-headed Scotch teachers who suggested that a six-o'clock dinner served at the girls' vocational high school should be the regular time of meeting. Experience has proved that the atmosphere of hospitality—the breaking bread together, has been conducive to greater freedom of discussion. Special meetings may be called by the chairman, or upon the petition of three members. A week before each regular meeting, each representative must call a meeting of his group for instruction as to its wishes. New topics to be considered in the council are suggested in these section meetings, and on those already before the council opinion is determined and the representative is instructed. The superintendent, assistant superintendents and the supervisors are privileged to attend all meetings, but have no vote. The duties of the council are advisory. Its purpose is to hold conferences with the superintendent in regard to the practical operation of the city schools.

The officers are elected at the first meeting of the year and consist of a chairman, vice-chairman, secretary-treasurer, and two representatives to the meetings of the board of education, one of whom is expected to be present at each regular meeting of the board. These report to the council the proceedings of the board and act as interpreters of the teachers as to the board's attitude when accounts in the press are understood. So much for the machinery.

But you are asking, what has been accomplished? Has it been form without substance? I answer, no; for I am sure that many changes have been brought about to the benefit of the schools thru the influence of the council. These have usually taken place quietly, but are quiet forces any the less effective! Think of the silent wireless, the steady pressure of the English navy in the recent war, the love of mothers. Like these is the power of public opinion, and thru that the council derives its strength. It has led to the removal of irritating little things, such as needless red tape, repetition of reports, repair of school buildings during sessions, and, to some extent, lateness of supplies and too-many special entertainments. Suggestions in regard to such matters have been immediately put into practice by the superintendent and his staff. There have been big questions, too, before the council, and stormy sessions—for members do not hesitate to express their convictions or the wishes of their constituents even when they conflict with those of the administration. Of course it is only so that a council could have any value. Supine agreement would immediately get and deserve the sobriquet of "rubber-stamp."

Our most exciting question has been that of a merit system as a salary basis. The council last year had a committee which investigated and reported upon systems of merit. There was disagreement in the committee, and the council, at Superintendent Jackson's request, referred the matter to a mass meeting of the teachers at which the vote was practically unanimous against any form of merit system. We then asserted our belief that fitness and ability be carefully judged during the probationary period and an automatic schedule applied to all teachers after that period has been successfully passed. This has been the principle followed in our recent increase.

The council has had a salary committee during the past year which worked with committees from the grade teachers' association and the teachers' league, and assisted in securing both

the necessary legislation and the \$200 increase of salary.

Another matter of great importance became very early a subject of discussion in the council—that of the course of study and textbooks. During the first year of the council, the principle was adopted by the administration and has since been followed, that "textbooks shall, as a rule, be selected by committees of teachers, that more than one basic text may be adopted when the needs of a district make this desirable and that, when necessary, a book may be tried out before its adoption."

The movements for greater democracy in school administration which teachers are promoting in the various cities and states are an inevitable aftermath of the war. The stirring cry "make the world safe for democracy" could not be repeated during two years without effect upon that most fundamental of our democratic institutions—the schools. So, too, it is inevitable that the administration of the schools should come in for a most searching inquiry into the democracy of its methods and spirit. That the demand for democracy in the schools should be carried to extremes by some persons is not surprising.

The relations of the teacher to the school board and the superintendent and the problems of democracy in administration are discussed in this issue from the standpoint of the teacher. The papers are commended seriously to school board members as statements of the teachers' side of the problem, and as a clue to the causes of present unrest in the ranks of classroom workers. They throw into very clear relief much of the cause for the agitation for greater democracy in the conduct of the schools and school systems of the states and cities. Whether they point to solutions of the problem, each school board member may judge for himself in the light of the argument and of his own experience.

In a similar manner, committees of teachers have outlined the course of study in the various subjects. We changed this year from a two to a three term plan, and a readjustment of the course had to be made. The chairman of the council, with the approval of the superintendent, was empowered by the council to appoint a committee of three from its membership, who with him selected a committee of eight. This committee of eight nominated three times the number of teachers needed for the course of study committees, and from this list the superintendent made up the committees which outlined the entire course and selected the textbooks.

A question which has especially affected high-school teachers is that of the length of day. The urgency of this is due to the fact that there is only one session, and a very brief intermission for lunch causes a long, continuous strain which vitally affects the health of both pupils and teachers. The present status of the question is not altogether satisfactory, and future councils will probably take it up again. This subject came up first in connection with a discussion of the rules and regulations for the government of Minneapolis schools, one of the first topics referred by the superintendent to the council. At that time it was found that there were great differences in the various schools in many respects. Some were retained as necessary on account of special needs in certain districts, but many were eliminated, and greater uniformity was secured.

One of the conditions that very closely affects the teacher's health and comfort is the type of building in which she does her work. This matter was referred for study to a committee of the council last year at a time when a type-building was in course of construction. The members of the committee visited all the newest buildings in the city, secured the opinions of teachers as to commendable as well as unsatisfactory features, and the recommendations of the committee were to a large extent adopted by the architect. You may be interested in the kind of recommendations made. They were very detailed and practical like the changes a house-wife makes in the architect's plans for her kitchen, for they were based on actual experience. Some of them were that floors in all rooms be deadened; guards be placed in front of all radiators; buildings be so located that as nearly as possible all rooms will have sunshine either morning or afternoon; a bulletin board be put in the back of each room; that there be large blackboard space in the front of each room; that built-in cupboards for the teacher's use shall not have glass doors, etc.

There have been several interesting investigations and reports. These are kept for reference in the files of the board of education. They have included such topics as "The City's Finances," "Financial Conditions of the Teachers' Retirement Fund," "The State School Fund," "Standards for Minneapolis Teachers," "Education suggested by our War Experiences."

In order to keep in touch with new educational movements, the council has, for the past two years, sent delegates to the mid-year meeting of the N. E. A. and this year also sent one to the meeting of the "National Society for Vocational Education." As there is no treasury, this expense was met last year by a small assessment of the teachers.

There are pending certain amendments to the constitution of the council, the outgrowth of the unrest at the present time; (1) that the membership include one representative from each of the teachers' organizations, and (2) that one meeting be held each month, one of every three to be open to voting members only so as to remove any possible barrier to free discussion. Precedent for the last mentioned proposal was established in the first year of the council's existence, but has not since been followed.

Such in brief is the story of our attempt at bringing into closer relation the teaching body and the administrative staff. It is by no means perfect, but it will increase in value as increasing weight is given to its deliberations. With true American shrewdness we teachers watch for results, but we need to realize that we ourselves have a great deal of responsibility in securing those results. We hate to go to meetings, but eternal vigilance is still the price of liberty, and never was that truer than now. If our Minneapolis council, or any council is to be worth while, the general body of teachers must sacrifice time to attend the district meetings, choose representatives wisely, be sane in making judgments, and courageous in maintaining them.

The administration too, has its share of responsibility in the success of such a plan as ours. The council in no sense seeks to usurp or even to encroach upon the executive authority of the administration, but its very existence presupposes the admission that there are certain questions upon which the teaching body can give expert advice. Such are the course of study, textbooks, length of day, basis for promotion, the teachers' retirement fund, rules and regulations, salaries, buildings—in general, those questions which directly affect the teacher or the child. When such questions are referred to the council its recommendation should be followed. You recall that each representative discusses any important matter with his constituents before voting, so that the council voices the majority opinion of the teaching body. If we believe in democracy, should not that be a final decision?

It has been our experience that whenever the

(Concluded on Page 109)



## CONSTRUCTIVE PARTICIPATION IN ORGANIZATION AND ADMINISTRATION BY TEACHERS

Ethel M. Gardner, Milwaukee, Wis.

In these days of the glorious re-birth of democracy and the recognition of the right of peoples everywhere to determine for themselves the kind of government under which they shall live, the desire of teachers to participate in the organization and administration of the school system should cause no consternation nor alarm to the people of this greatest democracy in the world. We have seen the greatest military machine crumple and vanish from sight; we have seen the greatest autocracies pass from history forever; and we have seen a model educational system "weighed in the balance and found wanting." The world has learned the value of "team-work," of cooperation. The victory of the allies demonstrated its effectiveness. It is evidenced in the League of Nations. What should prevent its application in the industrial and educational worlds?

The nation has awakened to the importance of the public schools. It is awakening to the need for better training for teachers and for better salaries that there may be better teachers, but it has not yet realized that the way to secure the best teachers is to allow them to become participants in the great scheme of education.

We may appropriate millions for the training of teachers; we may obtain better salaries for teachers; we may attract to the teaching profession the brightest of our young men and young women; but we must allow them to be something more than mere automatons if we want them to be real teachers.

Laymen are surprised when we teachers talk about "democracy" in our school system. The average American citizen feels that the demands for democracy have been satisfied when a school board elected by the people has been provided for. He loses sight of the fact that school boards, as a rule, are composed of representative citizens, few, if any, of whom are trained educators; that such boards must necessarily employ educational experts to advise them in matters of which they admit they have no knowledge; and that within the last quarter of a century there has developed in the educational system of every large city in the country a veritable Junker class of administrative officers who are chiefly responsible for the "superior-inferior" relationship which causes so much dis-

satisfaction and unrest among the teachers of today. There can never be the right kind of cooperation, of "team work," in the school system until the representatives of the people on the school board and the instructors of the children of the people in the classroom are brought into closer relationship.

School directors and superintendents may call this "Bolshevism;" we teachers call it "democracy."

An effort to accomplish this was made in Toledo, Ohio. In a letter from the president of the Toledo Teachers' Association, March 9, 1918, she writes: "Our advisory committee was appointed at the suggestion of the board of education. It consists of twelve members appointed by the board of directors of the Toledo Teachers' Association, and divided into three committees,—education, building, and finance, corresponding to the three committees of the board of education. The plan was that they were to be ready if called in conference by the board of education."

For several years the feeling has been slowly developing in this country that teachers should have some right to express opinions on matters pertaining to school administration, and this has been evidenced by attempts in various cities to establish so-called "teachers' councils," or advisory committees of teachers. Some school boards have allowed teachers to express in writing their opinions in regard to changes in textbooks. Some superintendents have appointed committees of teachers and principals to report on textbooks and changes in courses of study. These attempts at democratizing the school system have met with varying degrees of success. Teachers soon discover that their written expressions of opinion serve but to accumulate dust and discontinue writing them. Committees of teachers and principals usually find that it reacts to their personal advantage to make recommendations which find favor with those higher up, and act accordingly. Some teachers' councils become involved in local political difficulties, or are rendered ineffective because of an antagonistic attitude of the school board or the superintendent.

Of the most successful teachers' councils—those of Minneapolis, St. Paul, Toledo, Boston, New York and Portland—no two are exactly alike in either constitution or purpose, except

as they offer an outlet of expression for teachers. This in itself is of value, for teachers must express themselves and do, tho not always publicly; and school directors come into contact more or less with individual teachers and listen, tho not officially.

It is because of this gossip, "back fence" method of communication that teachers are prone to magnify their grievances and school directors believe that teachers have nothing to offer but complaints. Legalized recognition by school boards of representatives of organized groups of teachers would clear away these misunderstandings.

Superintendents and other administrative officers seem to fear this form of participation by teachers, for the most generally accepted type seems to be that of an advisory body to the superintendent. A teachers' council created by the board of education in Washington, D. C., in June, 1919, is to consist of the superintendent of schools, two assistant superintendents and two representatives of the administrative officers as well as delegates from the different groups of teachers.

When a member of the Milwaukee board of education proposed that "the teachers of the various groups hold monthly meetings for the discussion of matters pertaining to school administration; that each group should select annually a representative to the committee on textbooks and course of instruction with which these representatives of the teachers should meet every month and have a voice, but no vote," it was bitterly opposed by other members of the school board who seemed to fear that direct communication between the teachers and the school board would disrupt the system.

One director who feared that teachers would usurp the powers of the superintendent said that "teachers have not that all-round and distant view" which is necessary in order to administer a school system. All teachers will readily agree to this statement, but we do feel that we have the "close-up" and intimate view which no other group in the school system has. We feel that a school board that would give equal recognition to the "all-round and distant view" of the superintendent and the "close-up" and intimate view of the teachers, that would weigh them both judiciously and fairly, would be a democratic and American school board, and we should have no other kind in the United States of America.

# THE DIMINISHING VALUE OF THE DOLLAR AND TEACHERS' SALARIES

A Comparison of Teachers' Salaries With Wages in Other Occupations

Clifford E. Lowell, Berkeley High School, Berkeley, Calif.

Not long ago the writer made a study of the functions of a department head in a modern high school. In the course of his investigations he became interested in the question of opportunity for promotion open to ambitious teachers in California. This question was naturally connected with the salaries, paid in various schools in the state, to department heads as compared with those of regular teachers. This in turn involved the study of teachers' salaries as compared with wages and salaries paid to workers in other trades and occupations, and especially the effect of the decreased purchasing power of the dollar on the respective groups. The accompanying tables and plates will help to illustrate the results of these investigations.

The opportunity for advancement to headships is roughly shown by Table III attached. Here we find an alphabetical list of all the high schools in the State of California which listed department heads in 1918. This list of schools, with the number of pupils enrolled and the number of department heads in each, was obtained from the latest "Directory for Secondary Schools" issued by Mr. Will C. Wood, State Superintendent of Public Instruction in California. The figures are not absolutely accurate because changes occur every year and also because schools do not furnish data that can be tabulated exactly. However, they will serve our purpose sufficiently well. Fifty-five schools reported department heads, the total number of heads reaching 316. The number of headships in each of the larger schools is shown on Table III which illustrates the range of salaries paid to department heads in various cities in California. These figures are represented in diagram form on Plate I.

The data on salaries embodied in Table III and Plate I were obtained from the replies to a

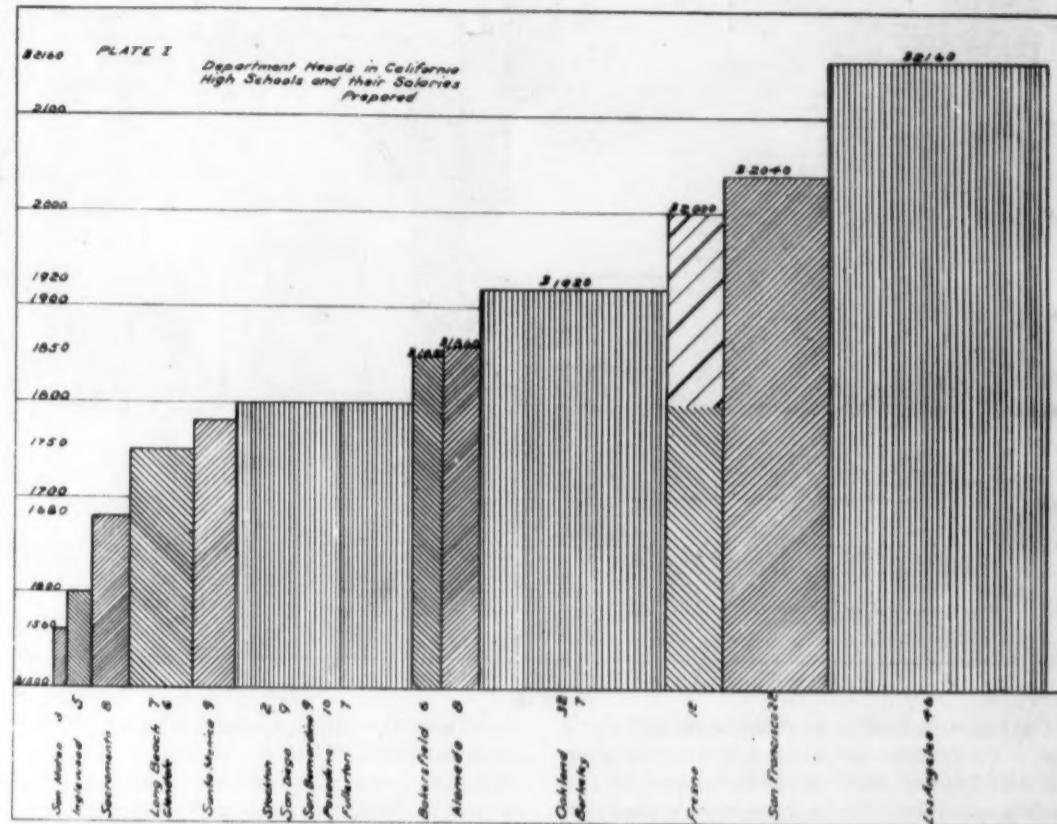


Chart I.

questionnaire sent out during the fall semester in 1918 by Mr. C. L. Biedenbach, Principal of Berkeley High School. Of the schools responding, 31 reported that their salary schedule provided for heads of departments at a salary higher than that of the regular teachers. The total number of headships represented is 208. On Plate I, \$1,500 is taken as the base line, this being the even hundred next below the smallest salary paid to a department head. Each column represents a group receiving a like amount. The size of the group is shown by the width of the column, one-half unit in width being added for each increment. The amount of the salary is indicated by the height of the respective columns, each \$100 increment being represented by two units in height. The first column is therefore small as it represents three department heads in San Mateo, receiving only \$1,560 each; column two represents five heads in Inglewood at \$1,600 each; column three, eight heads in Sacramento receiving \$1,680 each; column four, seven heads in Long Beach and six in Glendale at \$1,750; column five, nine heads in Santa Monica at \$1,780; column six, seven heads in Fullerton, ten in Pasadena, nine in San Bernardino, nine in San Diego, and two in Stockton, making 37 heads at \$1,800; column seven, six heads in Bakersfield at \$1,850; column eight, eight heads in Alameda at \$1,860; column nine, seven heads in Berkeley and 32 in Oakland at \$1,920; column ten, twelve heads in Fresno at \$1,800 to \$2,000 (no data as to individual salaries between these figures, hence the coloring); column eleven, 32 heads in San Francisco at \$2,040; column twelve, the largest group of all, represents 46 heads at Los Angeles at \$2,160 each.

The salary range is seen to be from \$1,560 to \$2,160 with an average of \$1,850, but an analysis of the figures shows that the median line is not at \$1,850 but at \$1,920, if the doubtful figures for Fresno be omitted, and, as they run from

\$1,800 to \$2,000, their inclusion would make little change in the result. These salaries are wholly inadequate and must be increased sufficiently to make up for the decreased purchasing power of the dollar. Since Plate I was prepared an increase of twenty dollars per month has been granted to all teachers in San Francisco. The salary of a department head there will be \$2,280 next year. Similar increases are being demanded in other cities at the present time.

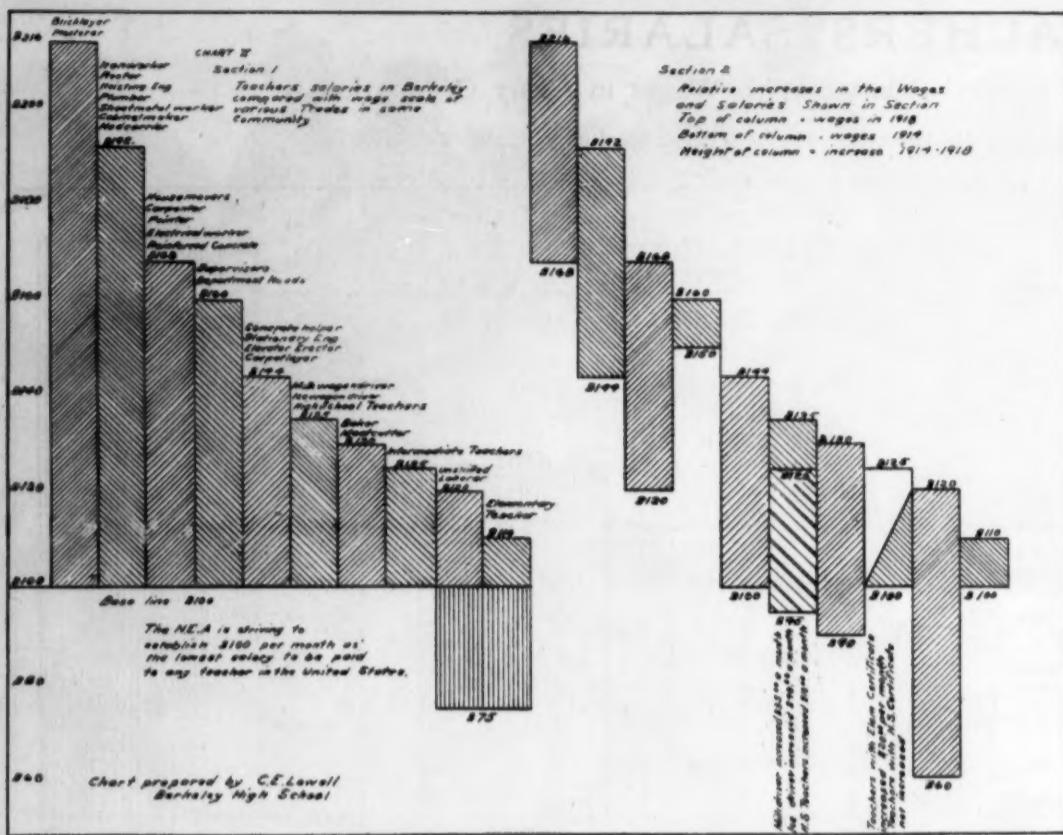
It may be of interest in this connection to see what increases in wages have been obtained by workers in other occupations. Plate II may help us better to understand why so many teachers are going into other lines of work and why young men especially are not preparing to enter upon teaching as a profession.

In this diagram (Plate II) the writer has taken one hundred as the base line. This figure was chosen because it is the minimum salary for any grade of teacher which educators think should be paid anywhere in the United States. The N. E. A. and other teachers' associations are, as you know, striving to establish this minimum throughout the United States for even the lowest paid teachers, with corresponding increases for those above.

Plate II is divided into two sections. Section I, at the left, shows in parallel columns the wages or salaries received by workers in various occupations in Berkeley and includes the various grades of teachers in Berkeley. The columns are arranged in order according to the amount received by each group. The figures for the building trades are furnished by the Building Trades Council of Oakland. Those for other occupations were furnished by various employers in Berkeley and are the union scale for this district.

In determining a monthly wage in occupations where wages are fixed on a per diem basis the writer has taken the minimum of 24 working

School	En- rollment	No. Dep't Heads	Salary
Alameda	1444	8	\$1800
Alhambra	747	3	
Anaheim	304	6	
Bakersfield	1002	6	\$1850
Berkeley	1699	7	\$1920
Fresno	2621	12	\$1800-\$2000
Fullerton	510	7	\$1350-\$1800
Glendale	708	6	\$1600-\$1750
Huntington Park (L. A.)	337	5	
Inglewood (L. A.)	317	5	\$1600
Lodi	283	3	
Long Beach	1585	7	\$1750
Los Angeles City High	2527	7	\$2160
Los Angeles (Franklin)	436	1	\$2160
Los Angeles (Hollywood)	1648	7	\$2160
Los Angeles (Jefferson)		4	\$2160
Los Angeles (Lincoln)	1445	5	\$2160
Los Angeles. Manual Arts	2634	10	\$2160
Los Angeles Polytechnic	2678	12	\$2160
Mill Valley	230	4	
Modesto	415	3	
Monrovia	250	1	
National City	205	4	
Oakland (High)	813	4	\$1980
Oakland (Fremont)	1330	6	\$1920
Oakland (Technical)	2100	8	\$1920
Oakland (University)	414	9	\$1920
Oakland (Vocational)	609	5	\$1920
Ontario	669	9	
Orange	343	4	
Palo Alto		2	
Pasadena	1913	10	\$1800
Petaluma		3	
Red Bluff	320	1	
Redlands	811	8	
Riverside (Polytechnic)	1685	5	
Riverside (Girls)	425	4	
Sacramento	2712	8	\$1680
Salinas	211	2	
San Bernardino	1399	9	\$1800
San Diego	1757	9	\$1800-\$2400
San Francisco (Girls)	666	4	\$2040
San Francisco (Lowell)	1136	6	\$2040
San Francisco (Mission)	623	5	\$2040
San Francisco (Polytechnic)	1300	7	\$2040
San Jose	1664	9	
San Mateo	358	3	\$1560
Santa Ana	928	8	
Santa Barbara	619	9	
Santa Monica	722	9	\$1780
Santa Rosa	469	6	
Stockton	929	2	\$1800
Turlock	332	2	
Visalia	206	1	
Watsonville	291	4	



days per month and multiplied it by the day's wage, i. e., column one at the left extending up from the base of \$100 to \$216, represents the monthly earnings of a bricklayer or a plasterer who works 24 days at \$9 per day. Column two represents the monthly wages received by the ironworker, the roofer, the hoisting engineer, plumber, sheetmetal worker, cabinet maker or even the bricklayers' hod carrier for 24 days' work at \$8 per day. Objection may be made that in the building trades the irregularity of work tends to reduce the monthly or yearly wages. The extent of such reduction seems impossible to average as it is irregular, therefore no attempt has been made to adjust the height of the column to show it. We must simply keep the fact in mind as we study the plate. In column three, we find a group of workers who are frequently employed by boards of education. This column extending up to \$168 represents the monthly earnings of the carpenters, painters, electrical workers, reinforced concrete workers, and house-movers, all much in evidence when a building program is going forward. Next below as shown in column four, come the supervisors and the department heads at \$160 per month. In column five we find the concrete worker's helper, the stationary engineer, elevator erector, and carpet layer at \$144. In column six, next below, we find at \$135 a month the high school teacher on maximum salary, the milk wagon driver and the ice wagon driver. It is interesting to note that the latter receives 75 cents per hour overtime for all over nine hours' work per day. Overtime work for teachers is constantly required but never paid for. In column seven, we find the baker and meat cutter at \$130, noting that bakers' strikes for 50 cents a day more are numerous and spreading fast with excellent prospects of success. In column eight, we find the intermediate school teachers, receiving a maximum of \$125 if holding a high school certificate and \$120 if possessing only an elementary school certificate. Column nine represents the earnings of the unskilled laborer at \$120 per month maximum, extending down below the base line to \$75 for delivery boys, etc. Last but not least in number and importance to the community we find in column ten the elementary

school teachers with a maximum salary of \$110 and a minimum of \$75 per month.

This diagram shows clearly that the school teachers in Berkeley, as in many other cities all over the United States, are receiving salaries below those paid for trained workers in other occupations and that the lower salaries are even less than wages paid to unskilled labor. It pictures a situation that should arouse every father and mother wherever it exists. Do they want to trust the education of their children to teachers who work for less than the unskilled laborer can earn? What sort of teachers can they hope to get in the future if this condition is not remedied? Why do the salaries of teachers today compare so unfavorably with wages in other occupations? Let us turn to Section II of our diagram for the answer.

The columns in Section II correspond in shading with those of Section I respectively, each representing the same group as is represented by the corresponding column in Section I. Each column likewise extends to the same height as the corresponding column in Section I, but the shaded portion of each, extending down from this height, measures the amount of increase in pay received by that particular group of workers since 1914. Or, to put it in another way, the present monthly wage is represented by the top of the shaded portion and the monthly wage in 1914 is shown by the lower end of the column, and the increase since 1914 is thus measured by the shaded portion itself. This increase as shown by columns one, two and three represents a raise of \$2 per day for the workers represented by those columns, or approximately \$50 per month. In columns five and seven the increase averages about \$40 per month and in column nine the unskilled laborer is shown to have raised his wages from \$60 to \$120 dollars, an increase of a hundred per cent. But turn back to those columns that represent the salaries of teachers and you will see that the increases to supervisors and department heads shown in column four is only \$10 per month and the same increase was granted to all other grades of teachers as shown in their respective columns. Column six indicates that while the high school teachers have received an increase of \$10 only, since 1914 the wages of milk wagon drivers have

been raised by \$35 per month, and those of the ice wagon driver by \$40 per month and overtime. This illustrates how the teachers have been left behind in the upward movement of salaries and wages. Column eight is shaded only in part to indicate that only part of the intermediate teachers represented by it have benefited by the higher salary granted. Teachers with high school certificates were restored to the salary formerly paid and which had been cut by \$150 a year. Teachers with elementary school certificates were increased by \$20 a month on the maximum salary. Column ten shows the small increase of \$10 per month to elementary school teachers as compared with the increases made by unskilled labor represented in column nine. Clearly the teacher has lost out in the race to keep salary equal to the increased cost of living.

To illustrate what the increased cost of living, or to put it conversely, the decreased purchasing power of the dollar, has done to the salaries of the teaching force in Berkeley, Plate III has been prepared. On this plate three figures are shown. Figure 1 at the left shows in parallel columns the effect of the decreased value of the dollar on the salaries of the several groups of teachers. Figures 2 and 3 show the scale by which this decreased purchasing value of the dollar is measured. The scale is constructed in accordance with figures given by State Superintendent Will C. Wood who presented statistics before the state legislature to show that the school money dollar for dollar does not buy as much as it did in former years. As shown by Figure 2, if we take 1911 as a base and the value of a dollar then as one hundred cents, the difference between column one and column two in that figure represents the shrinkage in the purchasing power of a dollar between 1911 and 1914. This scale shows the value of a dollar in 1914 to be 86.8 cents and corresponding in 1918 to be 58.9 cents, as shown by the height of column three. Now if we reduce this scale to show the ratio of the dollar in 1914 to that in 1918 we get figure 3 with two columns only. Here the first column represents the value of the dollar in 1914 as one hundred cents and measures the value of the dollar in 1918 by the decrease in purchasing power since 1914, as shown by figure 2. Figure 3 thus shows that the dollar in 1918 bought only as much as 67.86 cents would buy in 1914. This ratio is taken as the basis for figure 1 at the left and thus the scale by which salaries are measured is that shown by the relative heights of the two columns in figure 3. The difference in the height of these columns then represents the decreased purchasing power of salaries in 1918 when compared with the same amount of money in 1914.

Now let us apply the scale to the various salaries in Berkeley. In figure 1 at the left the base line is \$100 just as in Plate II. The height of the columns shows the extent by which the salary of a particular group exceeds or falls below \$100 per month. Three columns are used for each group. Column one representing the maximum salary in 1914, column two the maximum salary in 1918 and column three showing the real purchasing power of the present salary as measured by our scale. The first three columns represent the salary of supervisors and department heads. Column one shows the 1914 salary of \$150 a month, column two shows an apparent increase in 1918 to \$160 a month for department heads and to \$1,900 a year for supervisors. But in column three this increase is shown to be apparent instead of real, for the value of the \$160 measured by our scale, which shows the dollar to have a purchasing power of only 67.86 cents is seen to be only \$108.58. Therefore we see that, altho the board of educa-

tion intended to raise the salaries, the shrinkage in the value of the dollar really reduced them to little more than two thirds of the 1914 salary when measured by buying power. The next three columns tell the same story in regard to the high school teacher's salary. The maximum salary in 1914 was \$125, shown in column four, apparently increased in 1918 to \$135 but really worth, as shown by column six, only \$92.21 in 1918, extending down from that figure to \$78.04 which is the real value of the minimum or beginning salary for high school teachers. Columns six to nine inclusive likewise represent the cut in salaries of intermediate school teachers by the same conditions. Column six is intended to show that in this group all are not on the same salary basis, the maximum for teachers with a high school certificate being in 1914, \$125 per month and for teachers with elementary certificates \$100 per month. In 1918 the latter group received an increase to \$120 a month maximum, while the former maximum of \$125 for teachers with high school certificates was not raised. Column nine shows that the purchasing power of these salaries today, as measured by our scale, is \$84.83 for the highest and \$67.86 for the entrance salary of \$100 a month paid to this group. The last three columns representing the salary of elementary school teachers show that the maximum salary in 1914 was \$100 per month and the minimum was \$70 per month. In 1918 as shown by column eleven, the maximum was raised to \$110 and the minimum to \$75 per month. But the present value of these salaries is seen in column twelve to be only \$74.65 for the highest and \$50.90 for the entrance salary paid to teachers in this group.

These figures are startling when thus presented yet no one can deny that the facts here presented are true. In point of fact they are too conservative, because our scale is the one used by Superintendent Wood, and does not take account of any change in the value of the dollar in the years 1918 and 1919. The index numbers quoted by the United States Bureau of Labor Statistics show that \$0.99 bought as much in 1914 as could be purchased in November, 1918, for \$2.06. This would indicate that the dollar is worth about fifty cents in purchasing power.

You will note by comparing the first column in each group on Plate III with the third one that the real loss in salary to the teachers runs from \$35 per month in the case of the grade teachers to about \$50 per month to supervisors and department heads. Now let us turn back to Plate II and compare the increase in wages obtained by other occupations with those received by the teachers. In the first three columns of Section II, we see that the increase in wages of \$2 per day, amounting to about \$50 per month is just about enough to make present wages equal to those of 1914. In column nine, we see that the unskilled laborer has gained more than that and is better off than before. But when we look to see what has been done to compensate the teachers for their loss we find that the increase is a uniform one of \$10 a month for all grades of teachers, instead of the \$35 to \$50 needed to meet the situation. In column six this is most strikingly shown. The wages of the high school teacher and the drivers of milk wagons and ice wagons are the same now, but while the teachers have been increased \$10 per month since 1914, the milk wagon driver has been raised \$35 and the ice wagon driver \$40 a month since 1914. Such differences lead one to question why.

Why have the teachers received less increase than other workers? Partly because the public has not realized what the situation really is and

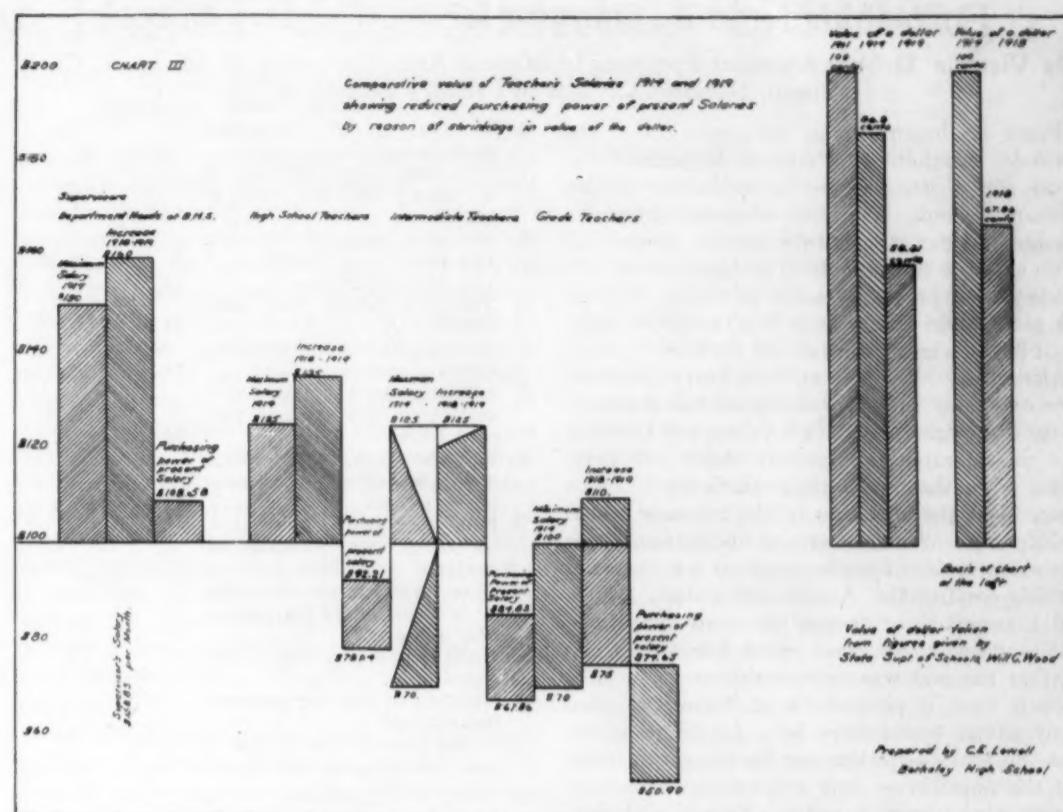


Chart III. Comparative Value of Teachers' Salaries in 1914 and 1919.

because the teachers are not organized to fight for a square deal as the other workers have done. But mainly because the boards of education have been dependent on taxes as the source of revenue from which salary increases must come. Even if they realized how savage a cut circumstances had made in salaries, which most of them did not, they were unable to convince the tax-levying bodies of the facts and of the necessity for raising the tax rate sufficiently to furnish the money. The time has come, however, when they must convince those in control of the tax rate and must compel them to do justice to the teachers over whose destinies they are placed in trust. Let them point out that the teachers are not even asking full compensation for their loss but less than one-half the amount needed.

How then can a board of Education run the schools with tax dollars that buy only two-thirds as much as in 1914 unless it gets enough more dollars to make up for the difference? How has it been done in Berkeley without a corresponding increase in state, county or city school funds? Partly by economy in use of materials, but the margin for such saving was small enough at best; partly by letting the school plant deteriorate for want of improvements and enlargements, but mainly, as we have seen pictured to us on Plate II, by taking it out of the salaries of the teachers. The increases demanded are about one-half what would be needed to restore

present salaries to the purchasing power of the 1914 salary schedule. If the teachers are willing to bear half the burden when other groups of workers have obtained nearly full compensation, surely the taxpayer should be ashamed not to assume the rest.

Let us pause a moment to analyze the tax situation. We have seen by our scale that dollars do not buy as much as they did in 1914. We know by daily experience that it takes more dollars to buy a pair of shoes or a suit of clothes or a hat than it did in 1914. Now if the citizen cannot buy as much with a dollar as he could in 1914, how can the city be expected to do so. If the city receives only the same number of dollars from the taxpayers in 1918 as in 1914 how can it render the same services to its citizens when the price of everything it buys is much higher? Our scale applies to the dollar the city receives in taxes just as to every other dollar. The teachers have been taxed from \$35 to \$50 per month to enable the schools to run.

In view of this situation it would seem that an immediate increase in the tax rate sufficient to raise the salaries of the teachers even considerably more than one-half the loss since 1914, is not more than simple justice. The writer does not believe that any intelligent citizen will hesitate to accept this conclusion and to join in the movement to raise the salaries of the teachers all over the United States.

## OUTER AND INNER EDUCATION

"Nothing in the record of modern times will so excite the smile among peoples of centuries to come as the serious attention which we have paid to this rudiment of education and the little after-concern we have shown for anything beyond it. They will be filled with wonder that this age, the most marvelous in many ways that has ever passed over the planet, among the first if not the very first in the richness of objective life, should ever have confounded with education, which means unfoldment, a makeshift, hurry-them-through process that contributes to nothing of the sort and is indeed the very opposite of unfoldment. Despite our multiplicity of schools, turn where we will, there are evidences that we are mistaking the outer for the inner, the facts for the living forces of life. Reading and writing, a little mathematics, a little history, a little literature, ability to trace a few rivers and locate a few capitals, to distinguish between the veto and the pocket veto, to know a robin from a bluebird—we do not seem to be aware that this is the outer shell of education as ritual is the outer shell of religion."

—Edwin Davies Schoonmaker.

## Furnishings and Equipment for the Primary School

Ella Victoria Dobbs, Assistant Professor of Manual Arts, University of Missouri, Chairman, National Council of Primary Education

From its beginning as an organization the National Council of Primary Education has stood for a greater use of activities in the primary school. The first response from the teaching body was a call for smaller classes and more suitable equipment. The installation of a kindergarten presupposes the provision of space for games and circle activities, and an equipment of tools and materials for various forms of construction. We had no hereditary ideals to overcome and therefore accepted the demands of the kindergartner at face value, not knowing how to separate kindergarten ideals and principles from the media thru which we received them. But the situation in the primary school is different. We and our parents before us for many generations have learned our a-b-c's under varying conditions. A seat, and a desk, a book and a pencil were deemed the only essentials. Until recently we have paid scant heed to whether the seat was comfortable or of suitable size—in fact, if pressed for an honest opinion, many of us would have been forced to admit that the seat had better not be too comfortable lest the pupil grow lazy without some discomfort to goad him to activity. Schools and children who have not known the kindergarten influence have plodded on in mute acceptance of the inevitable, but in other quarters they have resented the discrimination against the six year olds, and questions are asked that are hard to answer.

What change in the children at six makes it possible to teach twice or three times as many in a group as may be managed at five? If games and activities are normal and necessary functions in the life of a five year old, why should they be unnecessary or even harmful at six?

If kindergartens and high schools and upper grades need special equipment, such as tools and workshops, why are desk and a blackboard thought sufficient for primary schools?

In order to discover the attitude of the progressive teachers on this subject a committee of the National Council of Primary Education has been at work and has submitted a preliminary report based upon the replies to a questionnaire. Fully eighty percent of replies were received, which would indicate unusual interest in the subject. The questionnaire and replies are as follows:

**SUMMARY OF REPLIES TO QUESTIONNAIRE ON CLASSROOM FURNISHINGS FOR PRIMARY GRADES.**

**I. Number of Pupils Per Teacher Suggested in Replies.**

	Minimum	Median	Maximum
1. Kindergarten	8-10	20-30**	30-40*
2. First Grade	10-25	20-30	30-60*
3. Second Grade	12-15	25-35	30-60*
4. Third Grade	15-20	25-35	30-60*
Total Number of Replies	71		

\*Only one person recommended this excessive number.

\*\*For two teachers.

**II. Minimum Equipment in Primary Classrooms.**

Classrooms should be furnished with at least the following equipment within the room:

	No. Replies	No. Voting Received	Yes
1. Cupboard shelf space (below 4 ft., 36 in. x 18 in. x 9 in.) per child	71	59	
2. Additional shelf space for general materials, 30 ft. x 18 in.	74	59	

The present paper which was read before the Department of Primary Education of the N. E. A., at Milwaukee, July 2, contains the results of an important questionnaire on the equipment of primary classrooms. It will be found especially suggestive to supply committees and superintendents.—Editor.

3. Worktables or drop-leaf workshelves	74	61
4. Two sand trays (24"x36" x 6" each) on one rolling base	74	57
5. Movable furniture:		
(a) Chairs and tables	74	48
(b) Movable desks	74	62
6. Toilet, lavatory, soap and towels	74	63
7. At least 96 sq. ft. swinging display boards	74	48
8. Library bookshelves and collection of story and picture books	74	62
9. Materials and tools to work with—building blocks, rubber type, etc	74	53
10. Free floor space at one side of room for constructed projects	74	53
11. Zinc trays for window sills or window boxes for plants and bulbs	74	53
12. Good framed pictures for walls	74	53
13. Victrola or similar musical instrument	74	53
14. Filing drawers for teacher's use for samples of work reports, etc	74	53

Comments and suggestions written on the back of the questionnaires indicate that many persons thought that their mere signature of it showed their approval of the entire list. Only those items actually checked were counted by the committee.

The interesting thing concerning item 5, Movable Furniture, is that every one of the 74 voted for one or the other. With 36 persons approving both, this shows how poorly fixed-desks meet the needs of modern education.

Where item 6 was not checked the remarks on the reverse side of the sheet indicate that the general equipment of the buildings in that particular town seemed adequate.

Some people did not understand what was meant by the swinging display boards. It is the sort of thing we see in museums, where the leaves, as it were, are swung on a central rod and can be turned like a great book. It takes up but little space in the room yet anything can be displayed upon it. The teacher can open this big book, fasten up large sheets of paper and have any kind of reading lessons, language lesson, illustrative nature-study lesson, or, she can mount the children's work to be viewed, compared and discussed by the class. Had every one understood exactly what this valuable piece of furniture is, undoubtedly the vote would have been very much larger.

Many suggested closed, instead of open book shelves, mentioned on the first draft of the questionnaire, thus lowering the number of approvals counted for item 8 in our report.

Some interesting items appeared in comparing the figures. While the vote for movable furniture was practically unanimous, teachers generally voted for tables and chairs, and superintendents were equally united on chair-desks. The difference in opinion is easily traceable to the source of information. The teacher draws her conclusions from daily classroom practice while the superintendent is an observer only and is further influenced by the persuasions of the commercial agent. The use of chairs and tables necessitates a place to put each child's individual belongings. The use of materials suited to the large free muscular movements natural to six year olds demands that that space be ample as suggested—18"x36"x9".

A place to keep general supplies is needed sadly in every school and very few provide a place where large sheets of paper can be laid

flat on sufficient shelf space for smaller things. It is impossible to lay a foundation for orderly system in a room where materials are jumbled together in makeshift receptacles.

Sand table work, construction with blocks and other materials are recognized as essential methods in the primary as well as the kindergarten. The child of six is only the child of five a little further developed. He lives in the same world but he understands its details more fully. He needs opportunity to test his advancing knowledge. The only voice that is raised against the better equipment of the primary school is that which speaks of expense. Fortunately the war has taught us that we can spend liberally for real needs and still not suffer. We are going to profit by that experience. We are going to realize as never before that the primary schools which receive all the children of all the people more than any other part of the school system must be made the most attractive and efficient part of the system. We are going to realize more and more that if we are to combat the spirit of Bolshevism and all the evils which spring from discontented, envious narrow minds, we must preserve and develop the happiness of childhood and provide for big free development of human nature under happy and inspiring conditions. We have spent twice as much for chewing gum as for school books. Our bill for strong drink has multiplied our school expense many times. This sum, soon to be released, may be applied to better purposes.

America is able to educate her children. She must educate them. She is able to do the best for each of them and she cannot wisely neglect even the least in the most remote hamlet. Each is worthy the best that any receive. We dare not do less if we would hold to our high standards of liberty and democracy. It will cost more than we have been spending on our schools but less than we have found it necessary to spend for ammunition and for illiteracy schools for soldiers. Less than we have spent for quelling disturbances among unamericanized native-born aliens. Let us go forward.

**THE SCHOOL NURSE'S WORK.**

H. Addington Bruce, writing for a syndicate of large daily newspapers, calls attention to the fact that school nurses are largely overworked as are the teachers. He says:

The school nurse has come to be pretty generally recognized as an indispensable factor in the school system. Without her aid public education would go limply. Her duties are many and various. She has to be on the alert to detect signs of mental and physical ill health in the children in her charge. She has to cooperate not only with the school physician but also with the dentist, eye specialist, and clinical psychologist.

Unwilling parents must be persuaded by her to allow their little ones to receive needed medical treatment. In many homes she has both to teach and to apply the first principles of personal hygiene, and she is obliged to do much "follow up" work in order to make sure that her recommendations are carried into effect.

All this obviously means that, if she has to do her work properly, the school nurse should not be expected to care for any large number of children. As a matter of fact, she is in many cities expected to care for appallingly large numbers. Not a few school nurses have more than 3,000 children assigned to them. Two thousand is probably the average assignment. Inevitably this means work imperfectly done, no matter how conscientious the nurse. Also it means inadequate attention to another most important phase of the school nurse's occupation. Besides serving as a link between the home and the school, it is a part of her duties to give class talks and lessons in the laws of health.

There is just one remedy. We cannot—at least we certainly should not—deprive any members of the school population of the benefit of efficient school nursing. But we can and should increase the school staff of nurses until all can without overstrain do their work as it ought to be done.

# The One-Story Rural Consolidated Building

Louis W. Rapeer, Ph. D., Director, National School of Social Research, Washington, D. C.

As previously suggested, the consolidated rural-school building that is thoroly adapted to its purposes and environment will probably be a one-story structure. The sixteen principles, or "standards," which have been set up for such a school, combined with present theories of lighting, ventilation, class management, and child hygiene, point inevitably, it seems, to the one-story type as the best solution. Up to the present, most of the one-story school buildings of any considerable size have been erected in towns and cities where the cost of the land is a deterrent factor and where the building and playground must in most cases conform to the shape and narrow confines of a city block. In numerous instances not even a full block (about 300 feet square) is acquired for both building and playground. Nearly all the leading school architects have made their inventions within such limitations and their buildings, altho very suggestive, are not usually the best for rural conditions.

Out in the open country or near a rural village or town where land is not divided into blocks and where the land cost is relatively a minor matter, the one-story school building can grow naturally into the form best calculated to meet the many requirements of twentieth-century rural hygiene and rural education. The best one-story schools so far erected in cities have many points of superiority over the higher buildings with basements. But if a one-story building with proposed extensions robs children of needed playground space, the city may well use the two-story-with-basement type. If one will examine critically a number of the best one-story buildings in cities or the plans which are published he will note a more crowded-together structure than is desirable for the best ventilation by natural means. And natural means of ventilation for a number of reasons are and will be used much of the year in most schools, especially in mild, warm, and summer weather. A good country consolidated school will, at the least, use its auditorium once a week for community gatherings thruout the summer. It would not be good economy to start the fans running for the building or the assembly room alone if this could be avoided by wise provisions in building plans and equipment.

In these one-story buildings in cities, the auditorium-gymnasium wing is usually built up against the corridors of the end wings of the prevalent E type building. This construction cuts this middle wing off from exposure to the breeze, except above the level of the classrooms, and means, when fans are not running, dead air and a certain degree of stagnation of ventilation. For a community motion picture or other meeting in the spring and summer especially, this plan would be bad, resulting in all the evils of "stuffy rooms." Some of these country buildings are used, as they should be, for community and social meetings thruout the year. In the South and far West, it is especially necessary to secure at all times free cross ventilation, and even with this, over-head large-bladed fans in constant motion are frequently desirable.

As permanent structures in the tropics, the writer has seen the possible beneficent influence of auditorium meetings of many kinds ruined by surrounding this middle wing on three sides with two-story wings even as far away as forty feet, leaving a considerable patio on either side. Were it not for the severe winters of many of our states and for the fact that school boards are beginning to show hygienic good sense in installing and running fans, in mild and warm

weather, either local for each room or one for the entire building, it would indeed, be a good plan to get the auditorium-gymnasium-library-lunchroom wing out entirely free from any obstructions to the natural ventilating forces in devising a common, standard type of building. Even tho the auditorium group is two-stories in height and the upper part of the high rooms is above the rest of the structure this is not sufficient. Neither is a narrow court or patio, of course, on either side enough. Probably not less than thirty to forty feet of open space, measuring from the inside corridors to the central wing of the E type, on either side, will be found necessary with one-story classrooms. An alternative type of building would be one in the shape of the letter U with the auditorium group making the junction along the front between the two end wings of classrooms. How to make this architecturally attractive might be a problem.

*The single row of classrooms flanked by a corridor which may, if necessary, be inclosed in glass in severe weather and left quite open like an ordinary porch with colonnade the remainder of the year, is desirable largely for ventilation reasons, altho it has its educational advantages. The ordinary building with two parallel rows of classrooms and a corridor between lacks the means of cross ventilation, especially when there are no windows opening into the hall. In such a building it is highly desirable to have a row of single-sash windows above the blackboards opening into the hall, under easy control by teachers. In many cases it has been found desirable to cut such windows thru these walls after buildings conforming to the old standard of unilateral lighting (and ventilation) have been erected. We have contended in the American School Board Journal, The American Journal of School Hygiene, and elsewhere for some time that uni-lateral ventilation is, for much of the year, in the typical school, exceedingly poor ventilation since it does not provide for circulation by cross currents of air. In most unilaterally-lighted schools there are great dead-air spaces in that third of each room at the rear and right of pupils as seated. Only healthy, vigorous children should be compelled to sit in such stagnant, "stuffy" air. In many cases it will be found that teachers have more or less vaguely sensed this condition and have adjusted pupils to it.*

*In many cases the pupils in this third of the room are occasionally blamed for listlessness or other symptoms of bad ventilation when they would show no such symptoms if changed to the front of the room where the windows on one side and the door on the right front leading to the hall make a cross current of air. If the unilateral lighting fad which has been so dogmatically standardized by administrators and theorists more efficient in issuing edicts and "standards" than in doing constructive thinking or invention must be followed, a second door should be added opening into the corridor near the rear of the room in order to save the health of pupils much of each year when fans are not running. One door near the front with windows above the right-hand blackboard would for many reasons of hygiene and class management be preferable. With such high windows and with both windows and a door on the left of pupils as seated we have the best features of an open-air school.*

*Some of the principal advantages and special features of the one-story consolidated school may here for brevity be stated numerically.*

Only the leading features will be noted which apply especially to the consolidated rural school. The accompanying floor plan is based on these principles. I have been greatly indebted to Mr. Snowden Ashford, Municipal Architect for the District of Columbia, for skilled assistance in the actual work of making the drawing. The plan owes much to his cooperation and the published plans of Perkins and others. If ably followed and adopted, this plan would to a large extent, bring about most of the following advantages and conditions:

1. *Greater safety from fire and panic* is provided than in buildings with two or more stories and basements. In the country, without skilled fire-fighting agencies close at hand, this precaution is fundamental. All walls and floors can easily be made fireproof. No space is left for wood construction or combustibles below the children since there is no basement and the main floors may be made of concrete on a cinder or other filling. In classrooms this concrete floor may by proper pre-arrangements be covered with ordinary wooden flooring. Each classroom has exits directly to the playground (a) thru a door on the left of the pupils as seated (b) thru the door and corridor into the patio on the right, or (c) out of the windows scarcely four feet above the ground on the left. Such a sufficiency of exits would meet the most stringent fire regulations of cities and would serve several other functions besides. The short jump from the windows should be without injurious effects to any country child, especially where effective gymnasium training and farm experiences have contributed to agility, hardihood, and courage in jumping such a slight distance. Plentiful exits from the assembly wing can also easily be provided, opening into the patios on either side.

The heating plant would be in a separate fireproof room at the rear of the building.

There is no good reason why most such schools should not be built almost entirely of concrete. Farm people today need constant object lessons in the use of this indispensable ally of the progressive agriculturist. A standard type of building such as is here suggested could be designed, steel or cast plates made for it, and these moved to different parts of a state whenever such a building were to be erected. The concrete could be poured into the molds formed with such plates and the latter would be practically indestructible. Sand, gravel, or rock for crushing is usually convenient, either on or beneath the surface of the ground.

2. *Overhead lighting* can be provided for all classrooms. Devices for such lighting have been perfected until it is now safe to recommend the system strongly. The dangers of rain coming in or of snow and dirt obstructing the light or of too much light and heat have all been successfully obviated. Window space should not be lessened because of such top lighting since windows are still necessary for ventilation. There is danger of overlooking this point as demonstrated by a number of "closed-air chambers" constructed as classrooms by men who considered the overhead lighting sufficient, as it may have been as lighting only, but who overlooked the needs of children for air currents, the breath of life, which can only be satisfied in most schools by means of windows. Even closed windows with the constant and never-failing use of central or local fans, either by the recirculation method or that of introducing constantly "fresh" air from outside, have other reasons against them than those of economy. The writer is very much in favor of widespread and

## School Board Journal

scientific experiments with recirculation, using the same air over and over again with only such replenishing as may come by opening doors, by leaks and by percolation thru walls, coupled with a good fan system and supplemented by an effective air-moistening and cleaning chamber. But he would not advocate erecting buildings with few side-wall windows as if this principle had been scientifically proved desirable and its cost were inconsiderable as compared with natural ventilation at least part of the year.

The saw-tooth plan of overhead lighting used by Perkins seems to be satisfactory. His plan of controlling the amount of light from overhead by means of hinged metal planes hanging from the ceiling under full and easy control by the teacher seems also successful. A teacher may cut off the direct rays of the sun, let in a small or large amount of light, or cut off all light when a stereopticon or other similar instrument necessitating darkness is used. This overhead system need not, of course cover the entire ceiling. A few large windows above the pupils in the rear, righthand corner will be sufficient. On a dark cloudy day such supplementary light is a great vision saver. And it may here be repeated that defects of vision, like cases of tuberculosis, now increase rapidly in frequency as we go upward thru the grades and years of school life. In the accompanying plan the location of the skylight in each room is thoroly indicated by a rectangle drawn on the floor plan.

Top lighting frees us also to some extent from the rule that usually the classroom windows at the left of the pupils, for the sake of some sunlight each day and its cheer and disinfection, should face either east or west. This innovation thus leaves us freer to make the building front toward any point of the compass. If we wish the front where children are loaded and unloaded from transportation vehicles to be as free as possible from severe winds and accumulated snow in most parts of this country we can have it facing the south or east. Orientation, usually a very important and much-neglected factor, is not, however, so great a factor with overhead lighting. For securing cheerful rooms and for the disinfecting influence of sunlight, it would, of course, be desirable to have the two long wings of classrooms extend north and south, even with overhead lighting, but this principle may now with more impunity be disregarded.

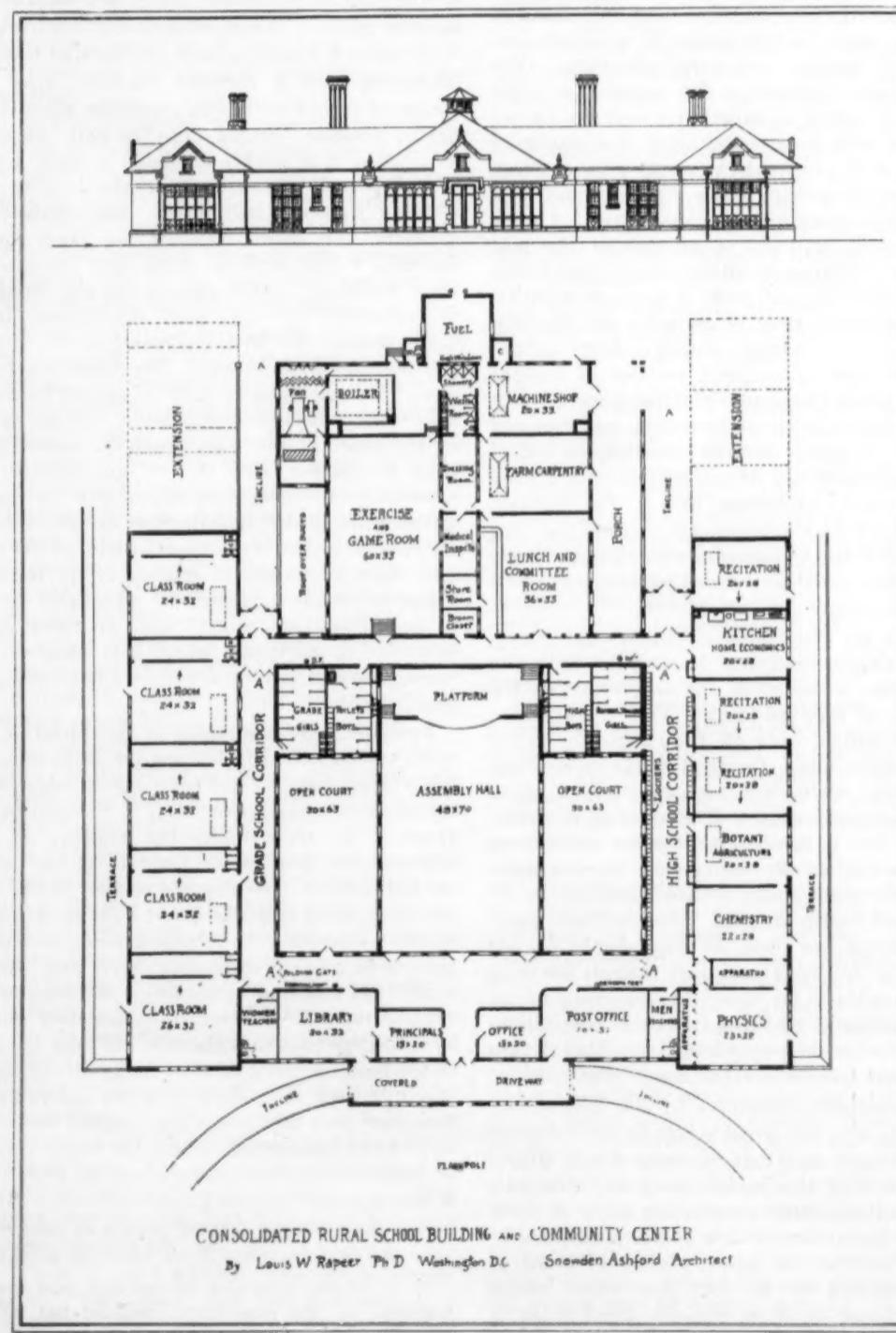
If the front of the building embraces several classrooms and the wings extended southward to secure east and west sunlight from the side windows each day, these front classrooms would have principally north light except for the overhead lighting. If the front were faced south these rooms would have principally south lighting which would make it necessary to have shades covering windows much of each day and interfering with window ventilation. With dark-green shades the room would thus be too dark except for the overhead lighting. Translucent tan shades should be used. If the covered driveway is extended along much of the front as a portico, corridor, or porch the latter would act as an awning to the southern rays of the sun. The south is a better front than the north from the standpoint of the transportation of pupils in winter in the northern portions of our country, and from the standpoint of ease of artificial ventilation, the plant being usually on the north, but not from the standpoint of direct sunlight much of the time in classrooms, to be avoided only by special devices such as a porch, awnings over windows, shades covering the windows much of the time, or the elimination of classrooms on the front as shown in our tentative floor plan shown herewith.

For the E type of building the south exposure may be somewhat bad also because it places what may be the open end of the courts to the

north. In our northern states and Canada such a frontage would mean great drifts of snow filling the courts part of the year. We have a cross corridor, however, which meets this difficulty. If a north exposure is chosen, the skylights of the classrooms on this front may be made larger than those on the side wings. If the building faces north, however, the heating and ventilating plant will have to be located under the front end, because of the greater use of driving air toward the south in this latitude. In the tentative plan here submitted for criticism and suggestion, we have placed the front toward the south, eliminated classrooms here by putting in offices and other rooms and have flanked much of the front with a covered driveway for the protection of pupils. The possibilities of a building in the country with overhead lighting must be given careful study and will only be disclosed after considerable such investigation and the erection of a number of experimental school plants in different parts of the country. Some means of country-wide collating and disseminating the results of such experience should be derived by some national committee or government bureau.

3. *A more educationally effective classroom* may by overhead lighting easily be provided with advantage to the entire school. The unilateral lighting standard, seemingly so easily enforced

on American city schools of recent date and many in the country, has made, as a necessary concomitant, a long, narrow classroom from front to rear. Since a good reading light will not penetrate well beyond twenty feet on many days of the school year, rooms have been standardized little wider than this, say 22 to 24 feet, the right hand row of pupils sitting about three feet from the wall. In order to seat some 30 to 38 pupils, this room must be quite long, very similar to storerooms with narrow frontage in cities. This type of room provides about six long rows of pupils in a room about 32 feet in length. Such long rows of pupils are by no means as easy to teach and manage as shorter rows with pupils nearer to the teacher and the front blackboard on which much of the class-work is written. Vision defects among as many frequently as one-fifth of the pupils, complicate the difficulty. Large pupils must be placed in the rear or sides to prevent their obstructing the vision of smaller children sitting behind them. The pupils in the rear of the room are very commonly out of range of the teacher's personality which is frequently of short range, especially among the novices employed at starvation salaries in most country and village schools. Even the voice of the average woman teacher hardly carries well this distance. The front blackboard is remote. The magnetism of the



Sketch Plan for a Complete Rural School of the One-Story Type.

teacher's presence, if she has any, should reach all pupils and pervade the entire room. No pupil should feel that he is merely sitting on the bleachers or side lines watching the real game from afar. Thus the long room forced upon us by the evanescent god of unilateral lighting and ventilation has many shortcomings.

Then, further, many schools have two or more groups of pupils in a room who must be taught separately. Where there are mid-year promotions, pupils of the same grade are in groups a half year apart in advancement. They can recite together in but a few subjects. Then, too, it is very common in the ordinary small school to have pupils in one room of two entirely different grades, separated by a full year of study from each other, a fifth and sixth grade, for example. Four principal ways of having these different groups recite without disturbing the others in the room have been devised. The old front recitation bench has about disappeared from graded schools. The separate recitation room, too, is little used for elementary children today. The plan of having pupils who are to recite take the seats in the front half of the room while the occupants of these seats move back has too many disadvantages to be seriously considered altho seemingly used successfully by a few teachers in graded schools. The almost universal practice in good schools is that of having the pupils sit in right and left groups extending to the rear of the room.

But these three long rows of pupils strung out down a long room can scarcely be called groups. They are tenuous lines too long for an audience

or reciting group on either side of the room; the two or more groups are too close together to avoid disturbing each other when one is reciting; and are well arranged and seated to destroy attention and interest. The room is about wide enough for one group if it is at the front of the room as shown by those teachers who have hit on the device of having front and rear section with a movement of all pupils between recitations. This disturbance with its carrying of books, forgetting of pencils and books the bothering of other pupils' property in the desks, and other features, show the trouble teachers in many such long rooms are willing to take to get a compact reciting group near the front of the room.

The whole difficulty is easily solved by overhead and right-hand lighting above the blackboard, as above described. The limitation on the width of the room is immediately removed and the length may be greatly shortened. Probably a reversal of the dimensions and the invention of the *wide-short classroom* is the remedy which "we long have sought and mourned because we found it not." A room 30 to 32 feet wide and 24 to 28 feet from front to rear, keeping the area about 750 square feet for forty pupils, makes possible two or three real working groups of pupils, one on the right and one on the left. With the pupils brought forward, the teacher will no longer need to "scratches," one of the common diseases of schools. Her pupils will be near, even those at extremes of right and left. There is more space for large pupils in the rear; there is a much longer blackboard in front;

there is a much longer space for a cloakroom in front or rear. In the accompanying floor plan we have placed the cloakroom on the front of each room but it may well be on the rear, by the Perkins' plan. The front location gives the teacher easy control, but shortens the blackboard by two doors.

The old-style, long classroom necessitates a very long school building, depending upon the number of rooms. With a one-story building and a single row of classrooms on each of two wings, the building may become, with large numbers of pupils, inconveniently long and thus almost if not quite as inconvenient as stairs and second floors and basements. The wide-short classroom abbreviates the building considerably and obviates this disadvantage of extreme length. Other advantages of this new type of classroom, now existent in possibly no school, will occur to all who have had considerable experience in practical education.

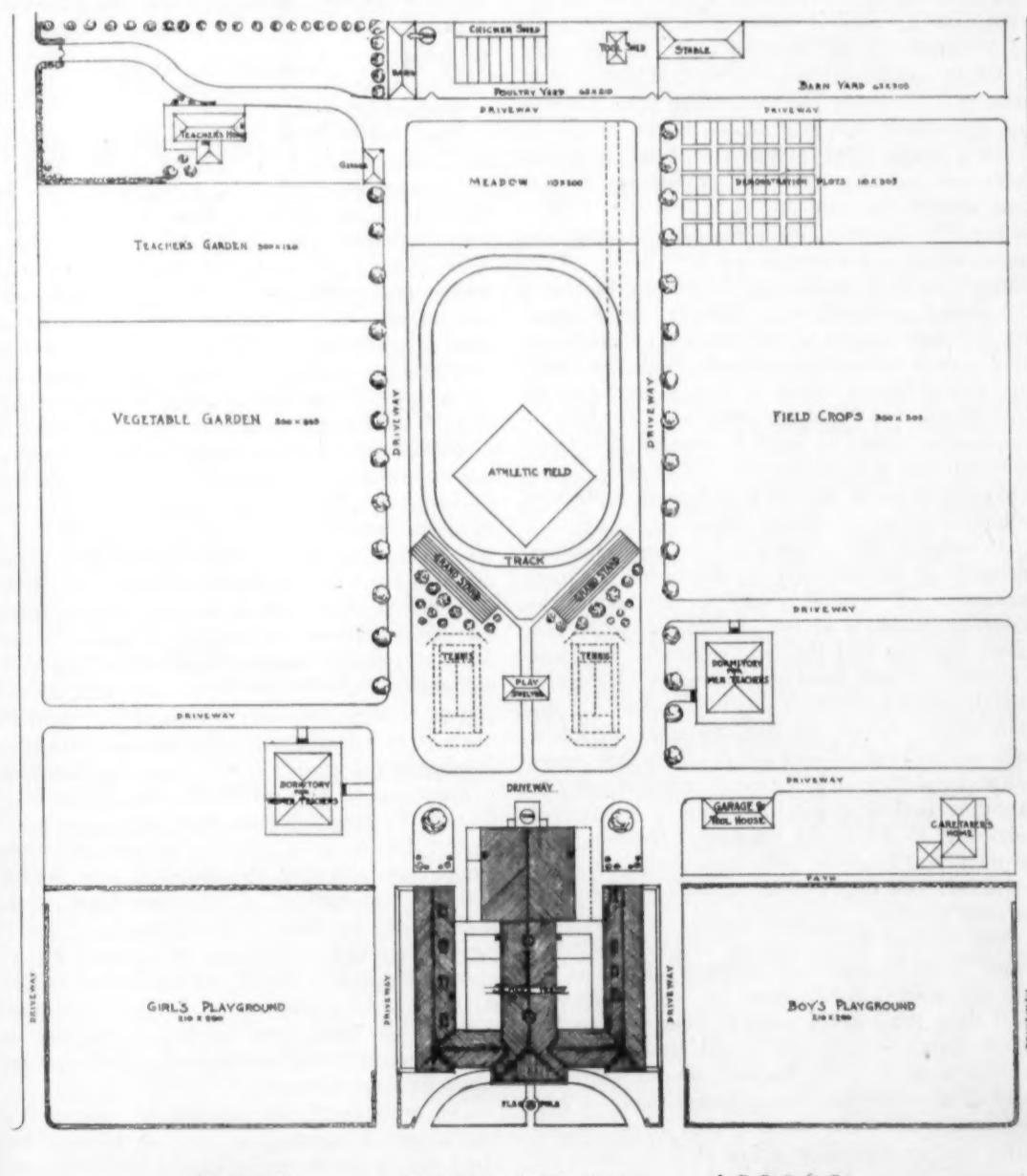
4. *Ventilation will be improved* and heating will be easier. The advantages of the one-story building of this character with respect to ventilation are evident. A door on either side of the classroom means cross ventilation, at least at the front of the room where the doors are opposite. Single-sash windows above the blackboard on the right greatly increase cross ventilation and these can remain open much of the time when fans are not running since there is no classroom across the hall to disturb and the corridor roof shelters from strong winds, direct sunlight, and rain. The vents in the skylight may be opened at will to permit escape of heated air, and the plentiful windows on the left, even with a shorter room, let in plenty of air currents when any are stirring outside. High windows on the rear may be put into such rooms as open thus to the outer air, such as our two front corner rooms. They are not used much in the accompanying plan since we have few such rooms. Ventilation by fans for each room or from a central source in the heating plant behind the auditorium and lunchroom wing may be as efficient as in a two-story building. Care must be taken to overcome the difficulty of forcing air long distances horizontally from a central fan. The short classroom leaves less of each room exposed to the outer air to complicate ventilation and heating. Other ventilation advantages may yet appear.

5. *The one-story plan keeps the auditorium on the ground level*, and makes unnecessary the stair climbing which is a disadvantage from many points of view, especially from the one of public meetings.

6. *Dismissal is easier for any room or rooms* without disturbance of other classes. In a building containing both elementary and high school pupils such mutual disturbance is easy. In the one-story consolidated building the high school, including the seventh and eighth grades, may be in one wing and the elementary school in the opposite one beyond the auditorium wing and thus widely separated. Each classroom of pupils can be dismissed directly either into the corridor or to the playground. Notice the outside doors to most classrooms in the accompanying floor plan. As suggested above, have a number of exits into the patios or courts at either side.

7. *The cost is not usually more than for a two-story type* with similar facilities. Architect Perkins has made careful studies of comparative costs of one and two-story structures and finds the difference usually in favor of the one-story with equivalent facilities. Other architects have found the one-story building somewhat more expensive. The elimination of stairways, of thicker walls to support second stories, of heavy supports for floors and of expensive fireproofing materials in the ceiling and roof,

(Continued on Page 105)



Sketch for Grounds of a Complete Consolidated Rural School.



## A Study of Certain Features of School Support

C. H. Fisher, State Normal School,  
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To get light on some of the problems connected with school support in the state of Pennsylvania a comparative study has been made of the school districts of one of the counties of the state, namely, Chester County. The first consideration was given to the relation between the assessment of taxable property for school purposes and the true valuation of such property. Taking the year 1895 as a starting point the assessed valuation of real property shows a steady increase up to 1917 in the fourteen boroughs of the county. (A borough is an incorporated community corresponding to towns and small cities in other states.)

But the townships tell a different story. Thirty-two of the fifty-seven townships show increases in their assessed valuations. The majority of these districts that are rural show only slight increases. The large increases are in a few townships adjoining boroughs or in townships that are suburban. Twenty-five of the fifty-seven townships, and these twenty-five all rural show decreases in assessments. Taking the districts that show slight increases and those that show decreases one can safely say that in Chester County the townships that are rural in character show practically no increase in assessed valuation from 1895 to 1917.

What are the facts regarding the true value of real estate? All the persons that I have consulted, among whom are specialists in agriculture, farmers, real estate agents, and assessors, agree that there has been a steady increase in values in the rural districts of Chester County within the last ten years. If this be true it is evident that assessments have not risen correspondingly to true values.

Another factor to be taken into account is the variation in the rate of assessment, or the per cent that the assessed valuation is of the true valuation. Since the year 1915 the secretaries of school boards have reported in the school district reports the per cent that the assessed valuation is of the true valuation. The average of the figures reported for the years 1916, '17 and '18 was used as the rate of assessment for each school district. The range in rates of assessment was from 30 to 92 per cent.

The question that naturally arises is how reliable are these figures? These figures have been reported to the state department under oath with no other purpose than to make a record. No self-interest has been connected with the reporting of the rates of assessment. Moreover the secretaries receive from the assessors duplicate copies of the assessment lists and are therefore thoroly acquainted with the assessment of property in their respective school districts. Under the circumstances the judgment of the secretaries of school boards regarding rates of assessment is more reliable than that of the assessors.

An effort was made to check these figures by consulting the chief clerk to the County Commissioners. This man has served in the office of the County Commissioners for a number of years and has wide knowledge regarding the work of the assessors of the county. In case the rate of assessment in a district was extreme-

ly low or high, comparison was made with adjoining districts. For example if a district had a rate of assessment of 92 per cent and each of the adjoining districts had a rate of assessment of 75 per cent and no factor was known that accounted for the extremely high rate of assessment, then the average of all the rates of the adjoining districts was made the rate of such a district. In this way the range of the rates of assessments was found to be from 50-83 per cent as over against 50-92 per cent.

As a result of this checking the rates of the fourteen boroughs were left unchanged. Out of a total of 59 townships one low assessment of 30 per cent was increased and eleven high rates of assessment were decreased and the rest were left unchanged. It is evident that there is a tendency to report the rates of assessment too high rather than too low. In the case of twelve districts out of 73 or about one-sixth of all the districts the rates of assessment were changed. The extent of the variation in the corrected rates of assessment is so small that one is warranted in drawing the conclusion that the rate of assessment is a dependable figure to use in such a study. The writer is willing to go further and say that from the standpoint of this one county the rate of assessment would be a dependable figure to use in making computations upon which to grant state aid for schools. This figure could be made useful thruout the state by giving authority to a state tax commission or the state board of education to investigate and correct rates of assessment. Compared with the school census, which is used in this state as one of the two bases for state aid, the rate of assessment could be used to determine a basis for state aid that would probably be more equitable according to the need, ability and effort of school districts to support schools.

In order to get comparable facts among school districts it is necessary to determine the true valuation of taxable property. By using the assessed valuation at the present rate of assessment one can find the true valuation on a one hundred per cent basis of assessment. By dividing the total number of pupils enrolled into the true valuation one can find the amount of taxable wealth back of each pupil. This fact represents the ability of a district to support schools. Another method of getting at ability to support schools is to divide the number of teachers in a district teaching on full time into the true valuation and thus find the taxable wealth back of each teacher.

The teacher basis may be preferable to the pupil basis because the teachers' salary is by far the largest single item in school expense. And then the teacher basis is more just to the rural districts than the pupil basis. If the teacher basis used in this way should become a part of a comprehensive state aid plan, in justice to all, the state ought to pass a law closing rural schools that have a low average daily attendance. Using the basis of the taxable wealth per-pupil-enrolled the results are as follows:

Range from lowest to highest \$1,635-\$21,282.  
Median \$4,915.

The middle fifty per cent of the districts ranges from \$3,784-\$6334.

(The median is the middle point in the range of the districts being below that point and one-half being above.) Using the basis of the amount of taxable wealth per teacher the results are as follows:

Range from lowest to highest \$39,000-\$477,000.  
Median \$143,744.

The middle fifty per cent of the districts ranges from \$113,461-\$187,500.

Having found the ability of a district to support schools, the question now is what effort is actually being made according to ability? The best basis for determining effort is to use the true tax rate. Only in this way can comparisons among districts be made. By taking the mills levied on the present rate of assessment and reducing the millage according to a one hundred per cent assessment one gets a true tax rate. The results for Chester County are as follows:

Range from lowest to highest 2.1-7.7 mills.  
Median 4.3 mills.

The middle fifty per cent of the districts ranges from 3.5-5.4 mills.

By comparing efforts and ability one can determine the status of any district. When is any school district putting forth effort consistent with ability to pay? If a district is in the lower 25 per cent of the districts in ability and above the median and especially in the upper 25 per cent of the districts in effort then such a district is making commendable effort. If a district is in the lower 25 per cent of the districts in ability and in the lower 25 per cent of the districts in effort such a district is probably not doing what can reasonably be expected, unless the district be poverty stricken which cannot be said of any districts in this county. If a district is above the median in ability and below the median and especially in the lower 25 per cent of the districts in effort such a district is not making the effort that can reasonably be made. Other comparisons will suggest themselves. All these comparisons are confined to the data of one county. More reliable comparisons could be made if such a study included similar data from a selection of typical counties within the state.

There are a few relatively poor districts in Chester County but none that seems absolutely poor. Taken as a whole the county ranks among the richest in the state. If one were to take the true millage of the upper limit of the middle fifty per cent of the districts or the 75 percentile which is 5.4 mills as a standard, not alone because it is the 75 percentile but because it seems to be a reasonable standard consistent with ability, then three-fourths of the districts of this county could be expected to make greater effort for school support.

The problem of the relation of state aid to local support naturally comes up here. Shall state aid be given regardless of local support? What happens when this is done is so clearly shown in a recent study of state aid to public schools in Minnesota by Raymond A. Kent that I shall quote from this study: "The influence

of state aid is negative. Lower school taxes accompany increase in state aid. So far as the special tax for school maintenance is a measure of local effort, state aid to rural schools has not been an incentive to such effort. The effects of such financial assistance have been rather to cause the benefited districts to make less exertion to maintain their schools than if the aid had not been given."

From the standpoint of effort another fact that ought to be considered along with the true millage is the total amount of money actually invested per pupil enrolled. This total would be the sum of the tax levy per pupil enrolled and the state aid per pupil enrolled. From this standpoint the results are as follows:

Range from lowest to highest \$18-\$85.

Median \$27.20.

The middle fifty per cent of the districts ranges from \$23.90-\$31.60.

An even more important consideration is of the total amount invested per pupil enrolled how much of it is raised by local tax levy and how much of it comes from the state. From the standpoint of the local tax levy the range is from

Lowest to highest \$11-\$79.

Median \$20.75.

The middle fifty per cent of the districts ranges from \$18.40-\$24.50.

The per cent that the state aid is of the total invested per pupil enrolled ranges from 7.2 to 49.8 per cent.

Median 23.5 per cent.

The middle fifty per cent of the districts ranges from 17.7-30.5 per cent.

Two districts have an unusually high per cent of state aid owing to special aid for vocational



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high schools. Their state aid is respectively 49.8 and 47.3 per cent.

An interesting fact revealed by these comparisons is that some of the rural districts with one-room schools are investing more per pupil than the boroughs with well graded schools. Usually the higher investment in rural districts is due to a small attendance of pupils and the cost of tuition for pupils who go to other districts for high school advantages. Here would seem to be a strong argument for consolidating the one-room schools of such districts.

## The True Function of a School Board: Securing the Cooperation of the Public\*

H. O. Rugg, Assistant Professor of Education, University of Chicago

It is important that three outstanding facts concerning the present status of school administration be recognized. (1) In spite of the fact that we teach and administer schools better than we ever did before, the central administration of our medium sized and large cities show definite signs of a tendency toward a complete breakdown. (2) The fundamental cause for this is found in the prevalent misconception as to the true function of a school board in the administration of school boards. (3) The only hope for definite relief from present evils and inadequacies of the central administration is to be found in organizing groups of our most intelligent lay citizens for the purpose of disseminating information concerning the true status of education in the public schools.

### The Signs of Breakdown.

During the past five years example after example has been recorded of the misconception of school boards of their true functions. In two of the larger cities of the country in 1916, large groups of teachers were dismissed by the board of education without and even in opposition to the recommendation of the superintendent of schools, without charges for inefficiency having been brought, and in spite of the fact that a considerable proportion of the discharged teachers had been rated as "excellent" or "good" teachers.

As further illustration, the writer had personal contact in the year 1917 with five superintendents of schools in small cities, each of whom had been discharged by a politically

organized and politically minded board of education, after in each case having had either a reasonably successful, or in at least three cases, a very successful year.

In one of our largest cities recently a district superintendent was demoted from his position to that of principal of an elementary school, the principal of the elementary school being advanced to the position of district superintendent. This was done without charges for inefficiency, or other charge having been made. It was done over the protest of the teachers and citizens of the community. It was done in spite of the recognition by scientifically minded students of education that the man who was demoted was doing as satisfactory, if not better work as district superintendent than were each of the other district superintendents of the city.

In several cities within the writer's personal experience boards of education have commonly adopted the practice of initiating the appointment and dismissal of teachers. In these cities educational policies which could be properly established and developed only by professionally trained and experienced officers have been established by laymen in the board of education without regard to the advice or cooperation of the professional officers. Questions of the selection of school buildings, which should be decided only after definite information is available upon which to form a professional judgment, have been decided by lay citizens on the board of education without the assistance of professional executives. In brief, we are faced in a most striking way with these examples from various phases of school administration with the fact that schools are being actively managed by

laymen, thus usurping the activities of professionally trained and experienced executives.

### Cause of Tendency in School Board Activity.

It seemed very clear to students of school administration that the underlying cause of the difficulty is a thoro going misconception of the true function of a board of education. Students of school administration are agreed that boards of education are compact groups of representative citizens selected for the purpose of *getting schools managed, and not for the purpose of managing schools themselves*. They are no more equipped to decide school policies, initiate professional action within the school system than a lay board of trustees in any business, medical enterprise, scientific activity or whatnot. The most outstanding need in school administration at the present time is for the development of machinery by which two things may be consummated. (1) The education of members of boards of education to a recognition of their real functions, powers and duties. (2) The education of that more intelligent portion of the population from which these boards will be selected, and who may be expected to give active consideration and support to the furtherance of a sound school policy in the community. For the development of the former, the writer in collaboration with several specialists in school administration has been preparing material intended for the enlightenment of boards of education concerning the true scope of the activities of the board, and outlining the procedure by which the board may develop in a community a sound and progressive school system.

### The Remedy.

The third important fact enumerated above can be consummated most directly thru the affiliation and cooperation of just such agencies as are represented by this audience. Certainly the Federation of Woman's Clubs, the organization of men's civic and business clubs, the cooperation of parent teachers' associations, etc., thruout the country is definitely needed at the present time to coordinate the activities of a number of groups of intelligent citizens thoroly interested in the progress of our schools. Laymen thruout the country do not know what has been going on in the schools in the past two decades. The man on the street visualizes schools in terms of the little red schoolhouse he went to thirty years ago. The layman must be made interested, and thru his interest thoroly acquainted with the developments in the public school education in our generation. The only possible means by which this can be done is thru the activity of just such organizations as the Department of School Patrons of the N. E. A. The appointment of committees thru this organization will result in little unless it is supplemented by a very considerable amount of discussion of school developments themselves.

Detroit, Mich. The position of Deputy Superintendent of Schools has been created with the appointment of Mr. Charles L. Spain. Mr. P. C. Packer, formerly director of administrative research, has been appointed assistant superintendent of schools.

Mr. Spain has been with the Detroit schools for the past eighteen years. He was appointed supervisor of elementary schools in 1914 and in 1915 was made assistant superintendent. Mr. Packer came to Detroit in 1918 as director of the department of educational and administrative research.

Mr. Atanasio Montoya, who has made a nationwide reputation as superintendent of schools of Bernalillo County, N. Mex., has recently been appointed as field agent for the University of New Mexico.

Dr. David Spence Hill, who was formerly with the Peabody College of Teachers at Nashville, Tenn., has been appointed as president of the University of New Mexico. Dr. Hill entered upon his duties the early part of August.

Mr. Henry Gilruth has been elected superintendent of schools at Hancock, Mich., to succeed H. D. Lee.

\*Abstract of an address before the Department of School Patrons at the Milwaukee meeting of the National Education Association, July 1, 1919.

## HOW SHOULD SCHOOL LEADERS BE SELECTED?

William H. Allen, Director of Institute for Public Service, New York

When Detroit's school board in 1919 sought candidates for Supt. Chadsey's shoes it asked Chicago's board for its list of eligibles. Apparently to Detroiters any board that would choose Chadsey would be safe to follow. Why not, therefore, save time by using the work already done by the Chicago board? Would not Chicago's next best men naturally be the next best of the whole country?

Few phenomena in the educational field are harder to understand than that, instead of challenging and resenting the Detroit's board's procedure, our school men have either been silent regarding it or have applauded it and its Chicago model. This article is written to analyze this procedure for the sake of learning what it means to true ability in teaching and supervising fields. The fact that lay and educational journals were justified in seizing upon interesting personalities and quite as interesting salary levels of \$18,000 for Chicago and \$12,000 for Detroit should not obscure serious dangers to education in the way these two cities went about filling \$18,000 and \$12,000 posts.

*Danger 1.* Neither city pretended to investigate the actual work of candidates,—as if textbooks were to be selected without opening them, upon the appearance and talk of the writers. If work proofs, annual reports, etc., were studied and compared with those of other eligibles or with work results of home-town deputies no hint of that fact has been published. Yet anyone who knows anything about Chadsey of Denver and Detroit, and Condon of Providence and Cincinnati, knows that their actual work is well worth investigating. But all that the two boards knew at first hand was how the candidates looked and talked.

*Danger 2.* Both boards acted upon hearsay from persons in confidential relation to them without attempt at independent and official verification—as if textbooks were to be picked without testing them. Indeed the Chicago board is being applauded in educational journals for having chosen Chadsey because after coming to it upon an unnamed confidential trip, he had only good things to say about ten confidentially suggested possibilities.

*Danger 3.* Neither board had an "open list" of eligibles with invitation to the whole country to furnish names and supporting facts,—as if textbooks were to be selected from unadvertised, confidentially furnished, confidentially censored lists.

*Danger 4.* Neither board gave the public or the new subordinates of the chosen superintendents any fact-basis reasons for the selections except the fact of board impression,—as if super-

intendents would arbitrarily pick teachers without recording evidence of qualifications.

*Danger 5.* Neither board attempted to formulate for the world of eligibles and for its own clientele the work to be done by the new superintendent that would not be required by a town of 30,000 or was not required by these cities thirty years ago.

*Danger 6.* The school world applauded both boards—for personal selection it is true, not for board procedure in selecting superintendents—with the net effect of encouraging other boards to use the same blindfolded procedure.

*Danger 7.* School men, seeing that *work at home on the job one's paid for* counts for less than personal impressions made away from home when off the job, are tempted to "play up to" the handful of Warwicks who apportion prestige impartially and intuitively if only enough of it sticks to them in transit.

Substitute college, university or normal school board for city board and the danger to educational standards is equally apparent. Pick a technology president because of his moving prayer; pick a university president for his platform or table talk; pick a state superintendent because of his influential backing; pick a city superintendent because the board likes his manners or craves praise from his backers—whether does this lead the younger men in education?

The nearest analogy is in Russia where scores of millions are under a "dictatorship of the proletariat" in which the proletariat have little part except to stumble, suffer, gamble and fawn. Given a little organization among Russians, and Chinese mercenaries will not be tolerated. Given a little organization among school men, and preferment for impression will give way to preferment for proved service.

Concede that Chadsey, Condon and the next bests on the Chicago list are head and shoulders above all other educators in qualifications for Chicago and Detroit superintendencies, the educational need remains to have the facts about their previous services so impersonally proved that other educators will know how to equal their strong points. Only by repudiating the methods used by the Chicago and Detroit boards can education foster virility, independence and definite high standards. Instead of anathematizing Chicago and Detroit for permitting "politics" to interfere with the school board choices, educators should be using the two collapses by applauding Condon for refusing a factional majority and by urging the nation-wide need for free fields and no favor, no confidences, no secret standards when seeking educational leaders.

## LUCK, PLUCK—OR PULL?

L. W. M.

I used to have the fond idea that to secure a position as a teacher one needed education, a high degree of culture and refinement and a fine personal appearance, but long observation of the question has convinced me that it is really none of these but too often the whim of the superintendent which determines whether a teacher shall have a place or not.

Let me illustrate. My second position was secured almost entirely on the fact that my hair was red, or auburn as you wish to call it. I know that references that I gave were not consulted and there was little or no investigation of my record. The superintendent was very old and had had in his youth a "shining top piece" himself, and he had jokingly adopted all of that complexion and style as his special pets. My

predecessor had also the hair of Titian glow, and was a classmate of mine in the normal school, so when she gave up teaching for matrimonial life she recommended me and I fell into the place, where I stayed seven years.

Here is another instance: I was in a superintendent's office one day and happened to see him looking over some applications. He disdainfully cast one aside and said: "I wouldn't have that woman for any place in my schools." On asking why she was so unworthy he said, "Just look here she has written outside the margin of this application blank, and we never would get a report from her that was not all scribbled over the margins." I looked and there sure enough, she had had some extra training which would not go in the small places of the printed form

and she had dared to add that fact in order to increase her qualifications and with this result.

Another time he put aside a teacher because she did not write exactly as the Palmer or some other system advocates. It did not matter to him that she was a woman of long and successful experience in teaching history or civics, she might cross her T's in the wrong place and therefore she was debarred from his schools.

At another time I was unsuccessful in obtaining a position as art teacher in a normal school "because I lacked sufficient general training." The facts in the case were these: I had an appointment to meet the president of the school at a certain hour and he failed to come till some half hour later. I was on time. His interview with me lasted not over five minutes, tho I had come into Chicago for that special purpose, and had paid my own railroad fare and forfeited my time in the position I was then in. I had taken with me some articles that I had written for one of the leading school art journals and offered to show them to him. He took the magazine in his hand as tho it were hot and looked at the heading and returned it to me saying that he had no time to read it. He asked no questions of a general nature that would bring out my personal interests, or hobbies, if I had any. As a matter of fact I have had as much general education as the average special teacher, or more—two years in a state university, a trip abroad and the advantages of concerts, lectures and exhibitions of New York City for three years. Of course it was some mere whim of which I could know nothing. Perhaps I wore buttoned shoes when he liked laced ones better.

Sometimes they like many credits, and lots of degrees and care little for appearance, and sometimes it is experience, and sometimes it is penmanship and sometimes it is the kind of heels you wear, but almost every superintendent has his whims.

I know of one superintendent who actually hired a supervisor for one of the important departments of his system because she was plucky in helping to pump up an automobile tire. Chance brought it about that she took quite a long cross country ride with him and his family about the time that the position was open. On the way a tire went flat and he had much pumping to do. She got out and insisted on helping to do some of the strenuous work. Later he told some one that a woman who was as adaptable to any circumstances as she was, would make good almost anywhere and so she was given the place. It was a position commanding a salary that would attract some of the best and most highly trained and experienced women of the country, and she was without very much of either. But—she could pump a tire!

And so, after fourteen years of experience, in the schools, I am still questioning whether it is luck, in the form of red hair or pluck, in the form of brawny muscle that get one a position, for I surely know it is not always ability or efficiency that counts.

"Wouldn't it be a nice thing if we teachers could have some recommendations of the superintendents and let each other know which ones are partial to blue eyes and which ones cross their T's on the up slant so we could save time and postage in not applying for places that are beyond our reach?"

Plans for buildings in the school and other departments of San Francisco, Cal., have been delayed by a decision of the local district court, in which it is pointed out that according to the charter, all plans must be prepared by a "city architect." To protect the work already done by the board of education, Mr. John Reid, Jr., has been given the title of city architect by the board of public works. It is planned to carry the case to the higher court in an effort to have the ruling reversed.

# THE DIFFERENTIAL IN INITIAL SALARIES PAID TO ELEMENTARY AND HIGH SCHOOL TEACHERS

Clifford Woody, University of Washington

## The Problem.

One of the numerous difficult problems which arose in connection with the widely discussed question of teachers' salaries is that of the proper distribution of the salaries within the teaching body. In the city of Seattle the contention has been over the difference between the salaries paid to high school and elementary school teachers.

In 1907 when this was first taken up it was concluded that the important consideration in attempting to determine the difference of pay that should obtain between the two groups of teachers lay in the difference of time spent in preparing to meet the eligibility requirements. In that year the requisite preparation for appointment to elementary school positions was fixed at graduation from normal school—two years above the high school—and the requisite preparation for appointment to high school positions, at graduation from college or university—four years above the high school. Thus two additional years of preparation were required for eligibility to teach in the high school. This additional preparation at that time was considered as an investment and it was thought that such teachers should receive as additional pay an amount equal to the interest upon the additional investment. With the cost of additional preparation as a basis, this amount was estimated at \$300 and established as a differential in the maximum pay of high school and elementary school teachers. This differential was maintained for several years, until the high school group being the more active and the less numerous was able to secure greater relative increases in salary than were accorded to the elementary school group. Granting such increases by the board of school directors caused a disregard of the \$300 differential and gave occasion for the present controversy in which the elementary school teachers, becoming better organized and more aggressive, are insisting upon practical recognition of the previously agreed upon differential.

The present investigation is an attempt to determine in as scientific manner as possible the justice or injustice of this differential. It is an attempt to evaluate various claims urged by the contending groups and to determine what influence each claim should have. The investigation confines itself to a consideration of those factors which are influential in the determination of the differential in initial or minimum salaries since the problem of a fair salary adjustment is first faced in dealing with those meeting the minimum eligibility requirements. Other salary adjustments, i. e. those that come after one has been in the system for a time, are based upon *experience* and *merit*. While the problem of initial salaries and that of later adjustment are two distinct problems it is evident that justice in initial salaries, arrived at thru the application of scientific principles, will eliminate almost all further controversies.

Four sources of information were used for the purpose of getting facts upon which a conclusion could be justly based. A questionnaire was sent superintendents of schools in numerous cities to learn of eligibility requirements and initial salaries and to obtain an evaluation of points which might have a bearing upon the differential. A questionnaire was sent to the chairman of the "committee for the placement of teachers" in the state normal schools, colleges, and universities to ascertain what initial salaries are commanded by graduates inexperienced in teaching, whether those responsible for

hiring teachers select from the available candidates a higher type of scholastic ability for high schools than for the elementary schools, and what is the annual cost of living at the institution. A questionnaire was sent to the teachers in representative buildings, both elementary and high school, asking them to estimate the amount of time they had devoted during a specified week, to various activities, i. e. to school activities, recreational activities, home activities, and to activities for professional advancement. Thru this last inquiry it was hoped to determine whether there is any difference in the teaching load imposed upon the different groups.

From the above questionnaire returns were received from 43 city superintendents, from 32 state colleges and universities, from 44 state normal schools, and from 345 teachers. Tabulations made from these returns and their interpretations will be presented under the following heads:

1. Existing differential in minimum salaries in 43 typical cities.

2. Superintendents' opinions as to import-

Table I. Difference in Minimum Elementary and High School Salaries in 43 Typical Cities.

City	Elementary School Salary	High School Salary	Difference
Springfield, Mass.	880	900	20
Minneapolis	700	800	100
Cleveland	700	800	100
Rochester	800	900	100
Richmond, Va.	600	700	100
Boston	696	804	108
Columbus, O.	750	900	150
Somerville, Mass.	600	750	150
Denver	840	1000	160
Milwaukee	780	960	180
Providence			200
Butte	1050	1250	200
Des Moines	700	900	200
New Orleans	800	1000	200
Albany	800	1000	200
New York City	900	1100	200
Grand Rapids	800	1000	200
Billings	950	1150	200
Birmingham	570	800	230
Toledo	750	1000	250
Sioux City	750	1000	250
Camden, N. J.	650	{ M. 1000 W. 800	200
St. Paul	600	850	250
Syracuse	600	{ M. 1000 W. 750	275
Oklahoma City	760	1050	290
Berkeley	900	1200	300
Louisville	550	{ M. 1000 W. 750	325
Spokane	750	1100	350
New Haven	750	{ M. 1200 W. 1000	350
St. Louis	850	1200	350
Kansas City	650	1000	350
Los Angeles	820	1200	380
Dayton	800	1200	400
Davenport	600	1000	400
Buffalo	600	1000	400
Evansville	500	900	400
Indianapolis	500	900	400
Chicago	775	1200	425
Jersey City	900	{ M. 1500 W. 1200	450
Scranton	550	1000	450
San Antonio	...	...	456
Paterson	720	1200	480
Newark	700	{ M. 1500 W. 1200	450
Scranton	550	1000	450
San Antonio	...	...	456
Paterson	720	1200	480
Newark	700	{ M. 1500 W. 1000	550

Range in differences, \$20 to \$550.

Median difference, \$250.

1st quartile point, \$200.

3rd quartile point, \$400.

Average difference, \$274.

<sup>1</sup>Difference is estimated on salary midway between salaries received by men and women.

ant elements in the proper determination of the differential.

3. Eligibility requirements and their influence upon the differential.

4. The teaching load and its influence on the differential.

1. Existing Differential in Minimum Salaries in 43 Typical Cities.

The returns from the superintendents concerning the initial salaries paid, represented in Table I, show that high school teachers are paid higher salaries than the elementary school teachers, the amounts varying from \$20 to \$550, with a median at \$250 and an average at \$274. The quartile points show that the amount of difference in initial salaries in the middle 50 per cent of the cities varies from \$200 to \$400. This table reveals wide variations in the salaries in cities of similar populations and in cities of similar geographical positions: e. g., Minneapolis, similar in both respects to Indianapolis, makes \$100 difference in initial salaries while Indianapolis makes a difference of \$400; Richmond (Virginia) makes a difference of \$100, Louisville, a difference of \$325.

The sixteen cities in italics in this table represent the cities selected by the local superintendent as most nearly comparable to Seattle. The mere position of these cities in the total list portrays a wide range of practices. The average difference in the initial salaries for these sixteen selected cities is \$256, the median difference is \$275, with the first and third quartile points at \$175 and \$375 respectively. These figures are very similar to those for the 43 cities and point to the fact that the local conditions probably have more influence in determining the difference in initial salaries than do population or geographical location. From these figures then, it must be concluded, unless a peculiar local situation exists in Seattle that the \$300 differential is well within range of current practice.

At the same time the superintendents were asked to give the minimum salaries they were asked to state the basis used in determining the difference in salaries paid to the elementary and high school teachers. The tabulated results as presented in Table II show that the three principal items purporting to serve as such bases are: educational preparation, supply and demand, and tradition. It is not surprising that so many superintendents reported the first or the second of these items, but when 6 superintendents openly state that tradition is the sole

Table II. Bases Reported by the Superintendents for Determining the Difference in Salaries Paid Elementary and High School Teachers.

Items	Times Reported
Educational preparation	17
Supply and demand	7
Tradition	6
Salary campaigning	3
Tradition based upon education preparation	2
Difficulty of work	1
Educational preparation and supply and demand	1
No logical basis	1
More experience in high school	1

Superintendents reporting 40<sup>1</sup>

<sup>1</sup>One reported equal pay for equal qualifications. basis for salary differentiation and at least two others make such intimations, is there not cause for pause? Is it not to be expected that contention on the salary question will exist? Of the 37 superintendents who reported on the salary increases granted to these respective groups, 26 said that the high school teachers are given larger increases. The basis for determining the amount of increase in salaries as set forth in

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Table III again indicate the large influence of the arbitrary and the traditional in salary adjustments. In the face of such conditions as these there may be some cause for challenging current practice and asking that salary discriminations and differentials be determined upon more scientific bases. Such a condition demands that the justice of the \$300 differential contended for in Seattle be established by principles more fundamental than the *arbitrary* and the *traditional*.

**Table III. Bases Reported by Superintendents for Determining Salary Increases.**

**2. Superintendents' Opinions as to Important Elements in the Proper Determination of the Differential.**

Items	Times Reported
Arbitrary schedule	14
Experience	5
Custom	4
Experience and merit	2
Funds on hand	2
Supply of teachers	1
Teaching burden	1
Initial Salaries	1
License and success grade	1
Law	1
Superintendents reporting	33

In order to obtain expert opinion in evaluating certain factors in their bearing on the differential, a number of the stock arguments offered by the contending parties as reasons for paying high school teachers meeting the minimum eligibility requirements higher initial salaries than elementary school teachers meeting minimum requirements were listed and presented to the superintendents with the request that they rank them, aside from current practice in their own cities or elsewhere, in order of their importance, placing "X" before the item of no importance: "L" before the item of most importance, "2" before the item of next importance, etc.<sup>1</sup> From Table IV, showing the results of the superintendents' rankings, it is clear that the four most important reasons for paying high school teachers higher initial salaries are: Greater expenditure of time and money in meeting the high school eligibility requirements, demand for

**Table IV. Superintendents' Evaluation of Reasons for Paying High School Teachers Larger Salaries than Elementary School Teachers.**

Reasons	Rank Assigned			
	1	2	3	X
Greater expenditure of time and money in meeting the high school eligibility requirement.	27	6	3	1
Greater teaching burden imposed by high school teaching	1	2	1	32
Outside activities make greater demand on high school teachers' out of school hours.	1	3	2	29
Smaller supply of desirable high school teachers available.	8	13	0	15
Demand for men teachers in high schools and consequent increase in all high school salaries.	15	13	4	4
Traditional practice of paying high school teachers more.	8	4	3	21
High school selects higher type of scholastic ability.	11	10	0	13
Higher standard of living demanded of high school teachers.	0	7	1	26
men teachers in the high school and a consequent increase in all high school salaries, high school selects a higher type of scholastic ability, smaller supply of desirable high school teachers available. The big majority of the superintendents indicated that the other listed factors have little or no value. It is true that the results in this table represent the opinions of the superintendents—the specialists in the administration of our schools who supply and promote the teachers and who should be guided by a broad philosophy of education, if one exists—and that no suggestions are made as to the exact value				

<sup>1</sup>The superintendents were told to rank all items and almost all did but when they had indicated the items which should have little or no weight usually not over three items were left to ranked.

each item should have on the differential in terms of salary, but upon such opinions salary schedules are usually determined.

From the above reports, and from current practice so far as that is concerned, there is universal agreement that greater educational preparation is reason for paying high school teachers higher initial salaries. Within recent times there has been considerable agitation for equal educational preparation for both groups of teachers and a consequent demand that equal preparation command equal salary. In order to test out the superintendents' opinions on this matter, they were asked if they would favor paying the same salaries to both groups if the same educational preparation were required. Of the 31 superintendents reporting, nineteen replied "yes" and twelve "no." Some of the reasons given for the positions taken are so interesting that they are included as a part of this report.

Typical negative answers, with the name of the school system from which they came are as follows:

*Milwaukee:* "The high school instructor assumes greater responsibilities; more positive results required."

*Rochester:* "The high school practically demands a higher grade of teachers."

*Somerville:* "High school pupils demand advanced scholarship and intellectual training on the part of their teachers."

*New Haven:* "High school teaching requires a broader and higher type of intellectuality."

*Sioux City:* "The differential should be worked on the basis of the maximum salaries for grade and high school teachers, rather than upon the minimum salaries. The average beginning high school teacher does not have the technique of the average normal trained grade teacher. It is after she has arrived that she is worth more."

*Chicago:* "Elementary teaching can be done by younger teachers. Men teachers are more essential to high school instruction than primary. The increase granted to any group is largely governed by the state of the public funds."

*Kansas City:* "We must hold men in the high school and a living wage for supporting a family must be paid. It requires a higher type of intellectuality to do high school work, and unless we pay for that type we shall lower the type of the high school teacher. The community expects a higher type of service from the high school teacher."

Typical positive answers are as follows:

*Buffalo:* "Grade work just as important or more so."

*Columbus:* "The importance and difficulty involved in both classes of work are practically the same."

*Scranton:* "Teaching in elementary grades is more important than teaching in the high school."

*Indianapolis:* "Initial salaries same but high school salaries should increase more rapidly for the responsibilities of the grade teacher do not increase so rapidly."

*Butte:* "High school salaries are higher because being fewer in number than grade teachers, a raise for the former does not make a proportionate drain on the treasury. Equal skill is required of grade teachers. Value to the community practically the same."

*Los Angeles:* "High school teaching burden no greater than grade burden. The grade teacher demands first consideration. The character of the work required for the elementary teacher has become of such great importance as to require the highest possible type."

*Jersey City:* "If the minimum eligibility requirements for teaching in the elementary and high school are the same, including age as well

as scholastic requirements, I should say salaries at the beginning should be the same, but the salaries of the high school teachers should advance more rapidly. I cannot imagine circumstances, however, which would justify the same requirements for both kinds of schools."

*Toledo:* "Perhaps a justification for a difference in salaries at the minimum. Grade teachers should be expected to take less at outset because of two years less preparation; but see no justification for the difference in the respective maximums. The difference has been made simply because there were so many grade teachers and they were not so well organized and not so aggressive as the high school teachers."

*Berkeley:* "I believe very definitely that the time is almost here when all teachers in the public schools are going to be paid a salary on the basis of their merits as determined by native equipment, total personality, extent and thoroughness of training and successful experience. When the time comes that there is practically an adequate supply of teachers for all types of positions, limited supply cannot operate to justify higher salaries for some. In gains arising from reaching a basis of operation where salaries do not increase as the teacher goes from lower to higher grades will mean that the teachers will be willing to qualify and equip themselves ideally for the particular position in which they are most adapted. You and I have seen many cases of the teachers seeking to leave primary work for high school, when the actuating cause was the desire for increased salary rather than the belief that they were better fitted for the high school work."

"It is possible that it requires a total equipment of a little higher grade to work in the complex social situation confronting anyone who works with adolescents. If so, the salary paid might be a little greater. On the other hand, I have an idea that it is essentially a matter of adaptation. The high school teacher who can do that successfully just happens to be adapted to work with that type of social situation. Chances are she could not be assigned to a primary grade and succeed. In other words she is not adapted to the social situation in the primary grades but is adapted to meet the conditions in the high school. The sooner we get past the idea that the more advanced grades are higher or above those which are less advanced, the better. More advanced grades merely come after the less advanced, but in my judgment they are in no sense above, or higher."

*San Antonio:* "Given the same requirements all teachers would prefer the high school because tradition has made high school teaching more important. Teachers eligible for high school positions could not be prevailed upon to accept grade positions unless salaries were made equivalent to high school salaries."

The above cited quotations possess little value other than showing the diversity of opinions that exist on salary policies. Some of the replies are rather ambiguous and seemingly could be used equally well as argument for paying or not paying the same initial salary to both groups if both had met the same educational requirements. Some replies contain the suggestion that merely the initial salaries should be the same and that high school salaries should increase more rapidly. While nineteen of the 31 superintendents report as favoring the payment of equal salaries if equal preparation is required, there is still considerable evidence that other factors are present which would operate in making differences in salary schedules.

In general then it may be said that superintendents agree that the existence of differences in educational requirements of the two groups presents a justification for difference in the initial salaries but that other causes such as

"demand for men teachers in high school," "demand for higher scholastic ability in the high school," "smaller supply of desirable high school teachers," etc., have a contributory influence in the determination of the salary schedule. It should be added that the superintendents are pretty well agreed that such contention as "greater teaching burden imposed by high school teaching," "outside activities make greater demands on high school teachers' time," "higher standards of living demanded of high school teachers," etc., should have no bearing. The superintendents were not asked to state what they thought to be a just differential in initial salaries, but current practice in their systems show the differentials ranging from \$20 to \$550, with a medium at \$250. The superintendents widely agree that "mere tradition" should have little or no weight in the determination of salary differences, yet it is evident tradition has been a most potent factor in the determination of the existing salary schedules. The purpose of the remainder of this report is to supplement the traditional wherever possible and to assign to various items definite monetary values, based upon objective data.

### 3. Eligibility Requirements and Their Influence on the Differential.

#### (a) Educational requirements and their influence on the differential.

The city of Seattle at the present time is abiding by the eligibility requirements adopted in 1907, i. e. for eligibility to teach in the elementary school, the educational requirement is graduation from a two-year normal school course, and to teach in the high school, graduation from a college or a university. These eligibility requirements seem to represent the general practice throughout the United States, for of the 41 superintendents making reply concerning the minimum eligibility requirements for teaching in the elementary school 39 replied that their school systems required at least two years of attendance at normal schools; of the 37 superintendents reporting concerning the high school, all stated that the bachelor-of-arts degree or its equivalent is the minimum educational requirement for eligibility. Occasionally there is a suggestion that the educational requirements be changed, but those in charge of the administration of the local schools have not seen fit to do so and consequently the issue of a just compensation for the additional training must be faced. What difference in initial salaries should this two years of additional preparation have, is one of the burning questions.

In order to throw some light upon this difficult and complicated question, let us see what school administrators are willing to pay for additional educational preparation in the open market—such a market existing at the institu-

Table V. Distribution of Institutions Showing Differences in Salaries Paid to Graduates of the Various Courses Becoming Teachers in the Elementary Schools.

Distribution	Normals	Normals	Normals	College
of average	with 2 yr.	with 3 yr.	with 4 yr. or Uni-	versity
\$350-400	2	..	..	..
400-450	1	..	..	1
450-500	1	..	..	..
500-550	7	1	2	..
550-600	5	..	..	..
600-650	8	3	1	..
650-700	9	3	0	1
700-750	6	3	3	2
750-800	2	3	3	4
800-850	3	1	2	13
850-900	1	3	1	2
900-950	0	1	0	2
950-1000	0	0	1	3
1000-1050	0	0	1	0
1050-1100	0	0	0	0
Over 1100	0	0	2	4
Institutions Reporting				
Median	45	18	16	32
Salary	\$641	\$773	\$783	\$831

tions in which the prospective teachers are trained. By making comparison of the initial salaries paid to the graduates of the two-year normal courses, the three-year normal courses, and the four-year normal courses, and to the graduates of the colleges and universities, an evaluation of the additional training can be made.

Table V shows a distribution of the institutions according to the reported average initial salaries commanded by the graduates of the different courses, becoming teachers in the elementary schools. The table should be read as follows: two normal schools with two-year courses reported the average initial salary received was between \$350 and \$400; one normal, the average initial salary was between \$400 and \$450, etc. This table shows the median salary commanded by graduates of the two-year normal course is \$641; of the three-year normal course, \$733; of the four-year normal course, \$783; of the college or university, \$831.

The above table includes for all normal schools and universities making answer and taken at face value indicates that one year of normal training in addition to the two-year normal course—the minimum educational qualification for eligibility to teach in the elementary school—represents a \$92 (\$733-\$641) increase in the average initial salaries received; two years of normal training in addition to the two-year course represents a \$142 (\$783-\$641) increase. The graduates of the college or university—representing two years of additional training above the two-year normal school requirement—receives \$190 higher initial salary than the graduate of the two-year normal course.

Table VI. Distribution of Institutions Showing Increases in Average Initial Salaries Paid to Graduates of the 3 and 4 Year Normal Courses over Salaries Paid to Graduates of the 2 Year Normal Courses.

Salary Differences	Increases to Graduates of Three Year Course	Increases to Graduates of the Four Year Courses
\$ 0-25 .....	0	..
25-50 .....	2	..
50-75 .....	2	..
75-100 .....	3	3
100-125 .....	4	1
125-150 .....	3	1
150-175 .....	1	2
175-200 .....	0	1
200-225 .....	1	2
225-250 .....	1	0
250-275 .....	1	1
275-300 .....	..	0
300-325 .....	..	0
325-350 .....	..	0
350-375 .....	..	0
375-400 .....	..	1
400-425 .....	..	0
425-450 .....	..	1
450-475 .....	..	0
Over 475 .....	..	2
Institutions reporting .....		
Median increase .....	\$112.50	\$187.50

A more just evaluation of the worth of additional educational preparation is presented in Table VI. This table is a distribution of the institutions, having both two-year normal courses and either three or four-year normal courses, according to the increases in initial salaries paid to the graduates of the three and four-year courses over the salaries paid to the graduates of the two-year courses. In eighteen institutions having both two-year and three-year courses, the median increase in initial salaries paid to the graduates of the three-year course is \$112.50. In fifteen institutions having both two-year and four-year courses, the median increase in initial salary paid to graduates of the four-year course is \$187.50. These figures from Table VI are probably a better measure of the worth of additional educational preparation than the ones cited in Table V, because in Table VI comparison is made of the initial salaries

commanded by the graduates of the different courses, representing the different amounts of educational preparation, without due cognizance of the fact that both the amount of educational preparation and the institutions in which the training is given are variable factors. But in Table VI the figures represent different amounts of educational preparation within the same institutions and consequently the only variable factor in the amount of education. However, both groups of figures show the same tendencies, the only difference being a matter of degree, and with them as a basis, it can safely be said that each additional year of educational preparation above the two-year normal course should be rewarded with a \$100 increase in initial salary. This means, then, since the eligibility requirement for teaching in the high school demands two years of training more than the eligibility requirement for teaching in the elementary school that the initial salaries for high school teachers, on that count alone should be \$200 higher than initial salaries for elementary school teachers.

To corroborate this conclusion, one might consider these two years of additional educational preparation as an investment. According to the reports from the colleges, the median amount of money needed to attend a college or university during the junior and senior years is \$500 per year. (This represents the median of the figures furnished by such institutions.) If a student were compelled to borrow money to attend the institution during the junior year, he would have to pay interest on \$500, and during the senior year on that \$500 and an additional \$500. If he had to pay seven per cent interest, it means that he would have to pay \$105 interest on money needed for his two years of educational investment. At the same time that he was going to school he might have been teaching in the elementary school, for he had met the eligibility requirements for teaching in such positions. During the first year of such teaching he would in all probability have received \$641—the median initial salary—and during his second year a liberal estimate would be \$700. If we compute the earning power of his capital at seven per cent, the interest would be \$93.97. Now if we add the interest on the capital he would have had if he had taught \$93.97 and the amount of interest he had to pay to remain in school (\$105), it is evident that the prospective teacher, taking the two years of additional training is out \$198.97 for the undertaking. It is to be noted that these figures correspond almost exactly to the previously proposed value for the additional years of training. In all probability the superintendents have not figured in the manner suggested above, but the fact remains that they have been willing to pay for this additional preparation in terms that seem highly comparable, which fact would reinforce the conclusion that \$200 is a fair market price for the two years of additional preparation.

#### (b) Experience Demanded for Eligibility and Its Influence upon the Differential.

The amount of teaching experience demanded for eligibility to teach in the elementary schools is not as well standardized as is the educational preparation. Of the 40 superintendents reporting, fourteen report that no experience is required; thirteen, one year of experience; thirteen, two years of experience; one five years of experience. In a group of seventeen cities selected as most nearly comparable to Seattle, the amount of experience demanded for eligibility to teach in the elementary schools varies from one to five years. A study of individual reports offer some explanation for this variety of practices. The presence of a normal school, especially where extended practice teaching is

(Continued on Page 107)

# A PLEA FOR GREATER TEAM-WORK BY SCHOOL BOARDS AND TEACHERS

R. P. IRELAND, Gloucester, Mass.

A very great part of the efficiency of the teaching force is absolutely lost. Two things partially account for this: the unfavorable conditions under which teachers work, and the undemocratic methods by which they are governed. This is a strong statement and points to a deplorable condition. This is not stated as a criticism, but as an actual fact, due largely to the underlying mental state of the teachers.

Anyone on the outside can hardly realize how much the success of a teacher's work depends upon a state of mind. The maximum of efficiency in teaching cannot be reached or even approached while there is either physical want or a sense of injustice, or where any large percentage of attention has to be given to other work and cares. Other conditions may indeed detract from efficiency, but no one can dispute that these three are strong factors. In general it may be said that the first two lead to the third.

The grim facts of the cases are that teachers, as a class are approaching bankruptcy and that a growing portion is depending very largely on other work or other sources of income. This has been demonstrated in many publications, but the reader is referred to the report of the N. E. A. "Committee on Teachers and Salaries" of July, 1918.

Of course, in any large body of workers, there are always some who are meeting with disaster, and there are always some who, from necessity or from choice are giving a part of their attention to other work. What is intended to be emphasized here is that this number is greater than it has been before. It is intended to show that a crisis is at hand. For several years every one has known that there was something wrong somewhere. Now, with better organization and with orderly study of the question, the great majority of teachers are keenly alive to the injustice of their condition and to its causes. This injustice may be summarized as chiefly of two kinds: financial injustice, by which we mean inadequate reward for services rendered; and what, for want of a better term, we may call social injustice. The latter has probably a greater effect upon the mind of the teacher.

Some conditions, of course, can not be changed. All cannot be either supervisors or superintendents, and there must be a great body of workers; but because the main conditions can not be remedied at once, there is no excuse for omitting the obvious simple things which can be done.

One of these is the giving to every teacher of a share in the management and responsibility of the business. Another is the giving to the teacher a square deal. The best work in any business can result only when all feel themselves partners in the enterprise. Gratifying progress in this partnership has been made between parents and teachers. The idea of a partnership between school board and teachers has hardly been studied and something comparable to absentee landlordism is in force.

Now it should be premised that teachers are adult American citizens and that they have good business heads, and are capable of constructive thought. It is necessary to state this in so many words because, surprising as it may seem, teachers have been treated somewhat as if they were children or inferiors or of an incompetent order of beings.

Any body of workers under the best system is sure to have grievances occurring from time to time, but can you imagine any other business in which the employer, when directly notified of

an existing grievance by an organized body of employees, will delay even considering the grievance until such a time as he finds perfectly convenient? Can you imagine a board of directors of any corporation postponing from meeting to meeting, from month to month, any action whatever on matters put up by their employees, by their entire body of employees for consideration? Do you know of any business house at the present time that would delay attending to its correspondence for days and weeks, and when answering consider irrelevant matters rather than the subject at hand? Can you imagine any body of employees tolerating such a condition as waiting for months to reach their employer, either as a body or by a delegated committee? Can you imagine any modern corporation issuing a notice to its employees that they must not address the members of the firm upon any subject whatever? Any one will immediately say that such supposed cases are ridiculous and do not and could not occur in business life. Why, then, should they occur as they are reported to do in school life?

Teachers' associations have very carefully considered requests, formulated communications, and addressed the school committee in due legal form, only to have their communications deferred week after week and month after month, with no answer whatever. Matters which have been of vital importance to teachers have had action delayed apparently to suit the business or social convenience of some member of the school board. Communications have gone from teachers to school boards only to receive replies which were in effect not replies at all. Similarly, as it seems to the teachers, when any matter reaches the school board late no matter how important it might be, the reply will be received that no action is advisable at the time.

One will not have to go far to find cases in which the times of the working hours have been changed without consulting the workers. Terms begin and end without adequate notice. Vacations are shifted about or omitted altogether with no word whatever. In some cases the number of working hours in the day has been lengthened with no mention of increased compensation. A tendency has also been observed generally to encroach on what should otherwise be free hours, to require service of teachers outside of school hours.

It has been said above that teachers are adult American citizens. They resent deeply and with growing resentment, any autocratic methods on the part of employers. It is an open question how far they will tolerate them.

These facts and conditions are stated and not primarily to secure a redress of grievances. That will be attended to by the proper persons and at the proper time. They are instances here as a showing of the unhappy state of mind on the part of the teaching force which re-acts strongly on the teaching efficiency. They are shown here to call the attention to a situation which must, sooner or later be remedied in the interests of education.

Something has been said in the last few years of remedying some of these things by what are known as teachers' councils, which meet with superintendent or with school committee or both. In some cases they have proved successful. In other cases they were reported as failures. In fact the writer believes that no system in itself can properly relieve conditions. The relief, when it comes, must come in the attitude of mind of the committees themselves.

Some members will assuredly meet the teachers half way on a democratic basis. Some others

will probably find it mentally difficult to do so. It may be advisable for such members to retire and give way to others whose attitude is more adapted to teamwork. Many teachers believe that the personnel of school committees could be improved by the introduction of a more sympathetic element.

Many communities have congratulated themselves on choosing for their school committee men of large affairs, competent to deal with large business operations. This is all very well so far as it goes, but in some cases has it not worked out that the man of large affairs took the view of the large taxpayer, who may be more zealous to prevent money being spent than to secure the best education for the children?

Many members of school committees are from the so-called learned professions: Individually these doctors, lawyers, etc., may be acceptable, but from the very fact that their success in life has been achieved as individuals, they may be unable to get the point of view of a *class* of workers.

In some instances it has been suggested that a member of the teaching force should also be a member of the school board. The value of this would depend altogether upon the individual and their attitude toward each other.

An imperative thing is that from organized workers of some sort there should be representatives capable of appreciating the workers' point of view.

In some places a movement is under way by which teachers nominate or at least have a voice in selecting their superintendents. This is democratic and is really not so radical as it seems. In Massachusetts the Teachers' Federation of a committee whose business it is to look up the credentials of supervisors and superintendents and to place them at the disposal of school boards when desired.

Many teachers feel that it is the duty of school boards to look out for their interests directly by securing adequate appropriations and indirectly by opposing undue expenditure in other departments. This would leave them free to devote their strength to teaching, and we should have, in a measure, the happy condition of "team work." The fact that in so many instances teachers have been forced into a study of charters, ordinances and municipal finances shows how far we are from that condition.

It is not claimed that these things are the result of intention on the part of school boards. Are they not rather the result of indifference and a relic of past customs? There is no particular plan or system which can be urged which will cure this. It can not be cured by a system. It can only be remedied by a change of attitude on the part of those concerned, or by the placing in power of those whose attitude is different.

One thing is certain: With the growing tendency to democracy everywhere, teachers one way or another will step by step, secure better conditions. They will never tolerate the arbitrary conditions of the past.

The problem of better team work should be studied diligently from both sides. With the present crisis in the educational world, some solution of this problem is imperative and consideration of the matter can not be postponed.

The school board of Cleveland, O., has asked for \$15,113,000 as its share of the city tax duplicate, which is about \$7,000,000 more than can be allowed. It is planned to cover the difference with a \$4,000,000 bond issue and a two-mill additional tax levy.

# THE GREAT EXPERIMENT

Capt. F. M. Hammitt, De Kalb, Ill.

The assertion has been made that we are as unprepared for peace as we were for war. One exception at least must be made. We did prepare for the rehabilitation of the war's disabled. To understand the firm foundation on which this preparation rests we will have to look at the changes the government had made in our school system.

Uncle Sam has not seemed to worry much whether little Sammy went to school three months a year or twelve, or indeed if he went at all. He didn't seemingly care if one little Sammy got his 'readin', 'ritin and 'rithmetic and his history and his civics in a well lighted, well ventilated building under a well trained, cheerful and optimistic teacher or whether he got it in a basement lighted badly and ventilated worse, under a poorly trained and naturally pessimistic teacher. He left that to the individual states to look after.

But when the possibility of assisting in adding industrial usefulness to the schools was presented to him, the Uncle decided that he had some responsibility in regard to the schooling of the little Sammies. So he created the Federal Board for Vocational Education. Thru this board he offered to share the expense with the local authorities. When your Uncle does take a hand in things he rather insists that they be done in the best way possible. Not any old body is fitted for teaching from Uncle Sam's viewpoint. The heating, lighting and ventilation of the building are matters of concern. He even has a word to say in regard to the general and special equipment. And as mentioned before when anything does interest the old gentleman the best is none too good.

The scheme was just getting well organized when Uncle after putting up with a good deal as he always does, decided that Wilhelm Hohenzollern would not be happy until he got his. Probably the hesitation was caused by a realization that while Willie and his crowd would certainly get what was coming to them a good many Sammies would be killed and a great many more incapacitated in the giving. Because he had thought of these things as soon as he decided to go in he made arrangements to care for the incapacitated. Possibly he loves all his children alike but he has been accused of having a special weakness toward those who go directly to his aid in time of trouble. After the Civil war he established a pension plan. But for the men of this man's army he added a new feature. He knew that a great many of the men under proper conditions and after proper training could be again producing citizens. They would not remain forever pensioners. They would be able to do a man's work and earn a man's pay. Besides they would have that feeling of independence that always comes to one able to stand as a man among men.

Having established the federal board to do the industrial training with the little Sammies it was natural for him to turn these injured men over to that agency. But in this work he was not matching pennies with the local school board of Sammyville and then letting those whose economic situation permits them to take the time secure the benefits of them and letting those who cannot take the time do without them. These men are to be paid while taking the training. The enlisted men are to get at least \$75 per month and the officers receive the same pay as in service. Tuition, books and travel expense of course the Uncle pays.

Some people have dreamed of the possibilities of training where the students would be paid so that all could attend. A part of these dream-

ers have emphasized the possibilities in such a system of fitting the square peg in the square hole instead of letting it fall haphazard and getting in a round hole all too often. These dreams seemed far off because of not only the training expense but also the overhead. In the present case justice, sentiment, gratitude and good sense all combine to support Uncle Sam when he paraphrasing one of his fighters said "D—— the expense. Go ahead."

It is manifestly impossible at this time to make definite statements in regard to the results of this undertaking, either from the standpoint of the men affected or from the viewpoint of those who will be interested for possible educational lessons. The problem itself is as yet hardly measurable. No one knows how many men will come within its provisions. There will be certainly one hundred and fifty thousand and there may be a quarter million. Every man who receives compensation even temporarily has the privilege of taking training under the Federal Board if training will help him.

Popular imagination probably makes a wrong picture of the affected. We are apt to think of men disabled in war as men with arms or legs gone or some other decided body mutilation. There are many of these, all too many. But thanks to the spectacular collapse of the enemy this kind forms a minority of the minority. Gunshot wounds not causing amputations, disease and gas make up the vast majority. Gas—no one knows what malingering effects will be produced. "High sharp breathing" appears on thousands of papers describing the soldier's condition at the time of discharge. Will it cease in one year or in five years? No answer is known. The other time we met German soldiers they left us a legacy in the form of the Hessian fly. This time we have gas lungs.

An examination of the papers of 2,414 men who have been recommended for training in one district disclosed fourteen who had amputated limbs. No effort was made to otherwise classify the causes of disability, as the variety of names suggested that some one had carelessly upset a medical dictionary. The number of cases examined too, bears such a small ratio to the whole that any deduction that might be made would be open to objection. For that reason also no figures will be given in regard to the percentage of the foreign born as compared with the native born and the ratio of these to the total native and foreign population. However should it happen that the ratio disclosed in the 2,400 is maintained, certain gentlemen who have been attracting attention to their own patriotism by casting aspersions on the loyalty of our recent immigrants are going to have a lot of explaining. They may be able to convince people that it is a truer and more reliable indication of patriotism to stay at home and talk than to go fight. But personally I doubt their ability to put it over tho they have been very successful in this line in the past. This war has developed that art to a high degree. But when the army is demobilized and it is found that men up to 60 made pretty good fighting men, look out for an eclipse.

However some figures will be given because they will lead to no controversy. Further they are corroborated from other sources dealing with larger numbers and they throw a light from another angle on the problem with which the board has to deal. These figures deal with the school training of the men. They show that this education varies from total illiterates to post-graduates from our standard universities.

Out of the 2,414 papers examined 1,858 had never attended high school. Five hundred fifty-six had had some high school training, 91 had attended college and thirteen were college graduates. Their civilian occupations show as wide a variation. They range from the man who never did work, up thru laborers, the skilled trades and the professions.

The problem which the federal board has been asked to solve may be thus summarized: To train immediately in such a way as to overcome their handicap thousands of men whose education varies from zero to the limit of human knowledge, whose civilian occupations run the gamut of known professions, and whose disabilities vary from a ten per cent temporary disability to the man with a broken back, both legs broken, one arm and one leg paralyzed, his skull caved in and part of his nose shot off.

The solution of the problem seems to divide itself into three parts, the advisement section which determined what the men shall be trained for and what particular training each man needs; the training section which trains the men, and the placement section which finds the jobs for them after they are trained.

The man comes in contact with the advisement section first. So far as possible this contact is made in camp just after the man has been before the examining board and has been marked with a disability. As originally planned, an adviser was to be placed in the convalescent wards and become familiar with the men and permit the men to become familiar with the purpose of the board and with the possibilities of the various trades and professions. However the large number of cases of disability that never reach the hospital and the rapid demobilization each rendered this plan impracticable. As it is actually operating today the man and the adviser meet as strangers. The man is met by a clerk who fills out a questionnaire which, beside certain record data, brings out the man's age, nativity, schooling of all kinds, the nature of his disability and all the kinds of work he has ever done. He is then sent with the questionnaire to the adviser. From the data at hand and from such other information as the adviser may get from questions, one of which always is, "What do you want to do?" and with what he can read from the physical makeup of the man, the adviser must work. He must recommend whether the man be trained or not, and if he be trained what he be trained for, and indicate the nature of the training that will be needed in that particular case to fit the man for the particular work he is to do. Further, the adviser has to keep up a production of eight surveys per day or fifty per week.

What a crude system! some will cry. Certainly it is. No one realizes this more than the officers of the board and the advisers. They all realize too that the success of the whole plan depends on the accuracy of the advice. So unless you have a better plan don't talk to them about the possibilities of error in the plan they are following. You are pretty sure to be asked to devise a better way out of the emergency. The advisers especially are apt to question you rather sharply because they are after all the information they can get. So far as I know they have not picked as a motto: "To object but offer no solution." But if you can show that a man can make his living that way you will be honored by being put in a note book, qualities necessary noted and thanked by the adviser for calling to his attention a new trade.

Yet the problem is simpler than certain people would have us believe. It is easier for a

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physician to diagnose an adult who can describe his condition, than it is for the same physician to diagnose the sickness of a child who cannot talk. In thinking of this problem it is well to remember that the adviser is not dealing with children. The man himself has often made a choice and made it wisely. For cases where the man has done nothing and who is practically illiterate or for those who can't read English the "receiving station" has been created. Here the man receives academic training and a trade tryout under conditions that permit a more thorough study and observation.

The general rule has been laid down that a man's previous experience must be used so far as possible. Experience is an asset that must not be wasted. So much as possible must be salvaged. The professional square peg in the round hole will prepare to leave us here. In order to hold him a while longer it may be stated that a man can change his trade entirely. It is up to the adviser.

This last sentence is used in an epigrammatic sense. When the adviser sends his day's work to the district office his papers are checked by the district adviser or one of his assistants. The latter throws out all advisements that do not meet with his approval. The papers are then sent to the "training section." This department also possesses veto power. The training department presents such as are left to the "case board" on which sit both employers and employees. They can reject an advisement. Such as are now left receive orders "On to Washington." There, final acceptance or rejection is ordered. Since all these pass on the case as presented on a paper sent in by the adviser and no other sees the man it is up to the adviser—up to him to make out a case that will pass all these stations in safety. All rejected advisements come back to the man who made them. Verily an adviser hasn't exactly a bed of roses.

Save a little sympathy, however for the training force. In our before-the-war work in industrial education, training for certain trades and professions had been rather satisfactorily developed. Schools for lawyers, doctors, ministers, and for various phases of engineering are on every hand. Automobile schools, schools for carpenters, masons and others were in successful operation. To all these, of course, the board has access. But the training department must give the training to each case that the advisement section outlines, and this department does not limit itself to the trades or courses that have become at least partially standardized. Just how would you go about it to train a man to be a vatter in a packing house or even a ranch foreman? Certainly no schools offer training courses for these. The training department has to take for its motto "Find a way or make it."

From the nature of the work to be done the training department has not reached its peak load and probably will not for some months to come. What little criticism there has been of the rehabilitation work has been directed at the presumed slowness of this part of the machinery. Preparation of a man's case takes time and as contact is not made with the man until the time of his discharge there is necessarily some delay. Under the law too only compensable men can be trained. To be safe the training department must wait until the treasury department has granted compensation. However in certain cases demanding immediate attention the red tape is cut and the man placed in training immediately. This procedure is common with illiterates and all other receiving-station cases.

No account of the rehabilitation work can be complete without mentioning the assistance

given by the B. P. O. E. They placed at the disposal of the director \$600,000 to be used on worthy cases that might not come within the law. This fund has enabled the board to give the immediate training without subjecting themselves to possible charges of malfeasance should the government decide some case non-compensable.

Thru the ordinary channels however, the output is encouraging. More than three thousand are now in training and nearly two thousand are added to this daily.

The results of the work of this section will be felt long after all the soldiers are trained and placed. We will have as a result of its labors an adequate survey of the training facilities our country offers. More than this we will know the methods of training for every conceivable trade and particular job in that trade. Possibly in view of the thousands injured in in-

dustry each year this knowledge gained will be looked on by the next generation as of more importance than the training given the disabled men.

The main function of the placement section, at present, is to place the men who need no training and the men who need work until their cases are acted on. In the future this will be changed decidedly. This section will test the adequacy of the work done by the other two sections. The board's responsibility does not end until the man is successfully carrying on in the work for which he was trained. If the man can't hold his job for lack of skill or knowledge, it will be obvious that the training methods were wrong. Never before have we had such an opportunity for checking up on methods. When this work is completed we shall not have to guess, we will *know* how to train the vatter and the ranch foreman.

## Two Systems of Heating and Ventilation

Edward C. Baldwin, Business Agent, Massachusetts Board of Education

Heating and ventilation in school buildings is a subject upon which many have written and others will continue to write. One could fill a large bookcase with the volumes that have been written upon its various phases. A separate profession, known as heating and ventilating engineers, are dealing with the technical problems involved in the design and installation of heating and ventilating systems. Legislation has been enacted in this country and abroad and further legislation is being sought by interested parties, with a view of transforming certain standards into legal requirements. All this is stated for the purpose of introduction and to urge upon our members the importance of considering this subject from the standpoint of the taxpayer.

The taxpayer looks at every project from two angles. First: What does it cost? Second: What are we getting for our money? Regarding the first question, I have nothing to say in this paper. As to the second, permit me to outline the result of a visit of inspection I made of four schools in Connecticut and leave to you to determine as to what the taxpayers of these cities receive for the money invested in these buildings, for heating and ventilation, as compared with what they receive in your cities, and at the same time outline what was to me a most profitable experience.

### The Federal Hills School.

On January 31, 1919, I visited the Federal Hills Schools, at Bristol, Conn. I met the principal of the school in his office, and explained to him briefly the purpose of my call, which was to learn something of the so-called "Wheeler" system of heating and ventilation, which I was informed had been installed in that building. Before examining the plant, he said, "You should know something of the history which preceded the installation of the system." He then related to me the following story:

"The school board of our city desired to put an addition onto the old building, and as is customary, employed an architect to draw plans and prepare specifications. This was done, and in addition to the plans for the building, plans for the heating and ventilation system were made. It was proposed to install the so-called fan or plenum system. Bids were received from several contractors and upon examination by the committee, were found to be in excess of available funds. The architect suggested that in view of this situation, the committee investigated the heating and ventilating system installed in a schoolhouse of Fairfield, Connecticut, which in his opinion, could be installed for much less than the fan system proposed.

"It appeared that Samuel H. Wheeler, a public-spirited citizen of that town, believing he could design a system capable of providing heat and sufficient ventilation, at a minimum cost,

and with the consent of the town authorities, installed such a system in one schoolhouse, at his own expense.

"The Bristol school committee selected two of its members and the principal of the Federal Hill school to visit Fairfield, examine this 'Wheeler' system and make a report. The committee frankly admitted that it undertook this investigation prejudiced against what they were to examine, because they believed that it was reverting to the old-fashioned system of ventilation, by means of open windows. They believed that since modern practice discouraged window ventilation, and substituted therefore, gravity or plenum ventilation by means of fans and ducts which brought fresh air to the rooms, and flues which exhaust the foul air of the rooms to the atmosphere, anything else must be wrong.

"After visiting this school building in Fairfield, the committee completely reversed its opinion and reported back to their committee a recommendation that the 'Wheeler' system be installed, instead of the proposed fan system. Accordingly, a firm of heating and ventilating engineers was employed to lay out the system. This was done with the definite understanding that the engineers were not to be held responsible in any way for the result, and the work was undertaken without their endorsement."

He then added, "After two years' experience with this 'Wheeler' system, I would not for a moment consider a change: First, because of the comfort we experience with it; and second, because of its economy in both installation and operation."

With this preliminary statement from the principal, I then made an inspection of the building with him.

The school building is made up of two parts, the old, or original building, consisting of six classrooms, in which is installed the so-called "Massachusetts" system of gravity heating and ventilating and the new part, consisting of fifteen classrooms and assembly hall, in which is installed the "Wheeler" system of window ventilation. We visited every classroom in both the old and new buildings, and I am free to confess that there was a decided feeling of satisfaction in my mind in favor of the "Wheeler" system. This feeling was produced by the fact that each room was free from what is commonly known as the "schoolroom smell." More than that, there was a feeling of physical comfort that one senses, but cannot well explain. I passed thru each room, moving about among the pupils, for the purpose of detecting odors, drafts and variations of temperature. There were some odors; those that would be detected from standing over the body of any child, but there was nothing of the kind that we find in the average schoolroom. It is difficult to put into words just what one means by the phrase "schoolroom smell," or "physical comfort," but those who



BELVIDERE HIGH SCHOOL, BELVIDERE, ILL. Architects, Miller, Fullenwider &amp; Dowling, Chicago, Ill.

have had experience in passing thru schoolrooms when a class is in session, can interpret their meaning. To my great surprise there were no drafts in the rooms,—a condition that a man with a head as scantily clad as mine, can readily detect.

The "Wheeler" system, as installed here, consists of extra large radiators located under the windows, which radiators are operated by modulating valves, and are connected on the return with a vacuum system. There are two of these large radiators in each room. The temperature is controlled by the teacher, who adjusts the modulating valves in accordance with her judgment. The ventilation is obtained by opening the windows,—four in number—at the bottom. The cold air admitted thru these open windows is controlled by a baffle plate of glass which is fastened between the uprights of the window frame, and tipped backward, adapted to throw the air upward. This air, passing over the baffle, is picked up by the upward current of hot air from the radiators and then slowly falls, while passing thru the room.

On the opposite side of the room, near the ceiling, are two openings or vent flues, which flues go directly to the atmosphere thru chimneys on the roof. The theory is that the exhaled air and the air which comes in contact with the body, being warmed to a temperature beyond that of the air in the room, rises and carries whatever foul air there may be, into the vent flues, and exhausts this air into the atmosphere. This is what is commonly called "upward ventilation."

Notwithstanding the fact that the impression on my mind and the feeling I experienced were distinctly favorable, I saw what I thought were some errors in this system.

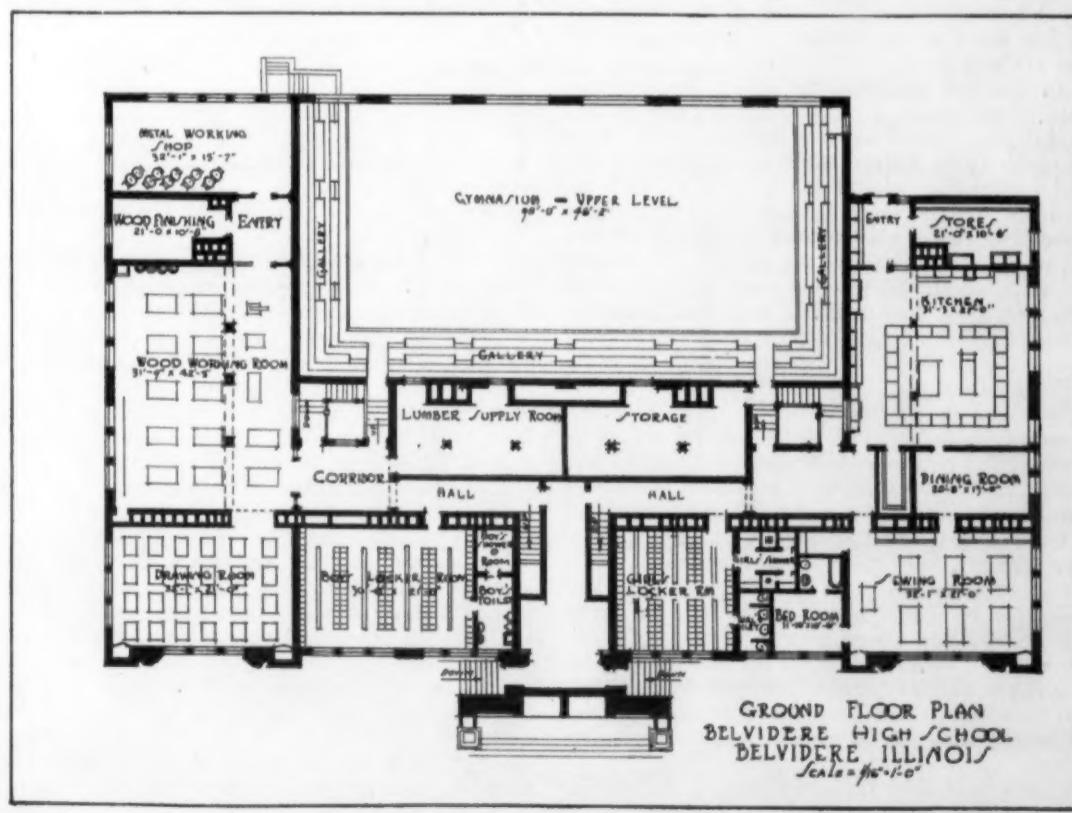
First: There is unequal distribution of temperature in the room. The large radiators referred to above, being located under the windows are of necessity adjacent to the first row of desks, and the pupils sitting at these desks sit in a temperature higher than that of the rest of the room. For example, the thermometer that was located on the inside wall near the entrance to the room registered 68°, which

temperature is the maximum which the teachers carry in this building. They prefer a temperature of 65° and say a higher temperature becomes uncomfortable. Moving this thermometer to a desk occupied by one of the children sitting near the radiator, it showed a temperature of 72°.

This difficulty could be easily overcome, if a metal shield, or better still, an asbestos board, were placed about three inches in front of the radiator to stand above the floor about ten inches. Another improvement which I think might be made, would be to set up this radiation in horizontal units instead of vertical. Instead of two large units of three column radia-

tors, there would be installed three horizontal lines of wall radiators. In this way, one-third or two-thirds of the radiation could be shut off as desired and warm air from the remaining one-third of the radiator would produce an upward current and completely blanket the cold air coming thru the open window and thus prevent any possibility of draft. Again, it would be well if such radiators be set not less than three inches above the window sills.

Also, there was a back draft from some of the ventilators. Together with the principal, I went on the roof to ascertain the reason for this, and found the common error made by architects,



GROUND FLOOR PLAN, BELVIDERE HIGH SCHOOL.

## School Board Journal

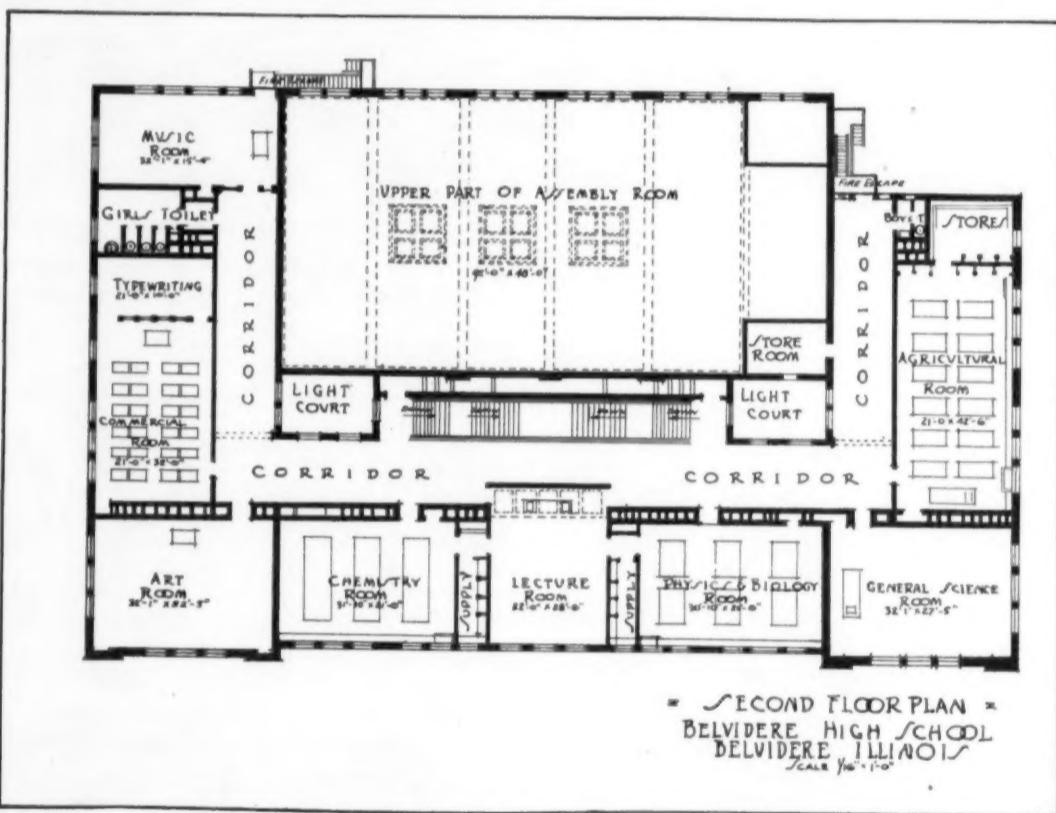
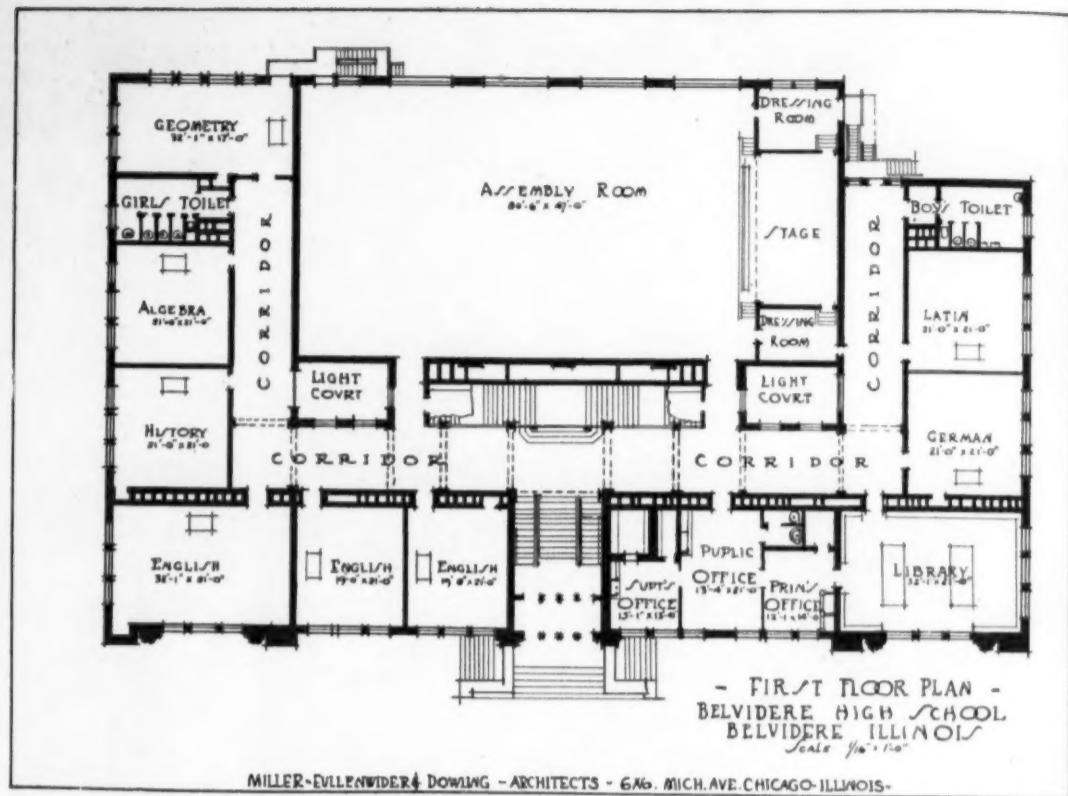
viz., vent stacks or chimneys which are too low. Evidently the architect did not wish to "spoil the appearance" of his building with a lot of "unsightly chimneys," and deliberately kept them below a point where they might be seen from the street. If these chimneys were raised about four to six feet above the parapet walls, I doubt if any trouble from back drafts would exist.

Another thing that impressed me was the intelligence shown by the teachers in the use, and the enthusiasm with which they spoke of the system. This was contrary to the experience I had in the old part of the building. Here is installed a gravity system of ventilation, with air chambers in the basement, into which fresh air is taken from the outside, from which it passes thru radiators, becomes heated, and by means of a flue, is discharged into the classroom, thru a vent-opening, about eight feet from the floor. This air ascends to the ceiling, travels toward the windows and then falls, passing around the occupants and after being inhaled and exhaled, is drawn off by means of vent-flues, with an opening near the floor. To control the temperature of a room with this system, the simple pulling of a chain is all that is necessary, yet I did not find a single teacher who knew how to operate the system. When pulling the damper chain, they went to one extreme or the other, and received either hot air or cold air, and did not seem to get into their minds that the damper in the flue could be adjusted to obtain tempered air. This should not be understood as a reflection upon the intelligence of the teachers, for I believe that the teachers in the old part of the building are of equal intelligence to those in the new part. Nevertheless, the statement I wish to make is that the apparently more complicated "Wheeler" system was operated much more intelligently and with far greater success than the more simple gravity system. I use the words "complicated" and "simple" from the standpoint of a mechanic. Evidently in this instance, experience shows that what the mechanic regards as complicated, to the teacher is simple, and what the teacher evidently regards as simple, to the mechanic appears to be complicated. For example, there was a difference of opinion among the teachers in the old building as to whether the fresh air came in from the bottom and went out at the top opening, or whether it came in at the top, and went out at the bottom.

Not all were willing to agree that the air that did come in was fresh air. One bright teacher, in a very diplomatic way, with a smile on her face, said, "We are told that the air that comes in there (pointing to the inlet flue) is fresh air," but the manner in which she said it very much indicated that there was an extreme doubt in her mind as to whether or not she believed the air was fresh.

In the new building, to adjust the temperature of the room, means the operating of two modulating valves on the radiator. In every instance these valves were operated correctly, and I might say that I did not see a single instance where the valve did not work correctly,—something that I was pleased to note as regards the operation of modulating valves. To obtain the ventilation, the teacher must raise or lower four windows, and I might add that some of these windows could not be worked easily and to raise or lower them was very much more of an effort than pulling a chain in the vent-flue as required in the old building. Yet in every instance, these windows were opened so as to produce the necessary circulation of air in the room. In these rooms the air smelled fresh and the temperature was right, except near the radiator as explained above. In one room, however, the windows were opened not more than one inch, perhaps less. The teacher declared the reason to be that the wind was blowing from that quarter and would blow a "hurricane" into the room. This reason is, of course, not in accordance with fact, but will illustrate the attention that ventilation received from these teachers where adjustment of the windows was required.

I have said that the condition of the air in



FLOOR PLANS OF HIGH SCHOOL, BELVIDERE, ILL.

the old building was bad. It was bad, but the teachers are not entirely responsible for it. Evidently someone in authority thought the way to prevent a down draft in the vent-flue and the exhaust of warm air from the building thru the night, was to partly close the vent outlet and therefore, caused to be hung over this vent outlet a piece of galvanized iron, which reduced the exit of air very materially by reducing the area of the outlet more than three-quarters.

As a result of this visit, I was greatly impressed by the manner in which the human element enters into the operation of these two systems. In the old building, the teachers were in doubt as to whether they were getting fresh air from the openings in the wall. They did not seem to have in their minds the methods by which the temperature could be controlled by the damper in the flue, which was operated by means of the chain, and this, notwithstanding the fact that the principal had repeatedly instructed them as to the use of this chain, with

the result that indifferent heating and ventilation were obtained; while in the new building, the teachers were sure that they were getting fresh air from the window. There was no question whatever in their minds about this, and their enthusiasm and willingness to operate the valves and to raise and lower the windows appeared to be no effort to them. It should also be noted that the teachers in this school are all young women. What the result would be if they were of the older type of school teacher, is of course but a guess.

### Several Bridgeport Schools.

The Jackson School in Bridgeport, Connecticut, is an eight (8) room building for lower elementary grades, located in a section of the city inhabited very largely by foreigners—I am told, mostly Hungarians. The building is a comparatively new one, and appears to be well built.

There are no coat rooms in this building; the clothing of the children is hung within screened

enclosures in the corridors. If one entered the building blindfolded, they would immediately know they had been led into a schoolhouse, because of odors from this clothing. I did not examine the ventilation for these corridors, and my impression is, there is no ventilation.

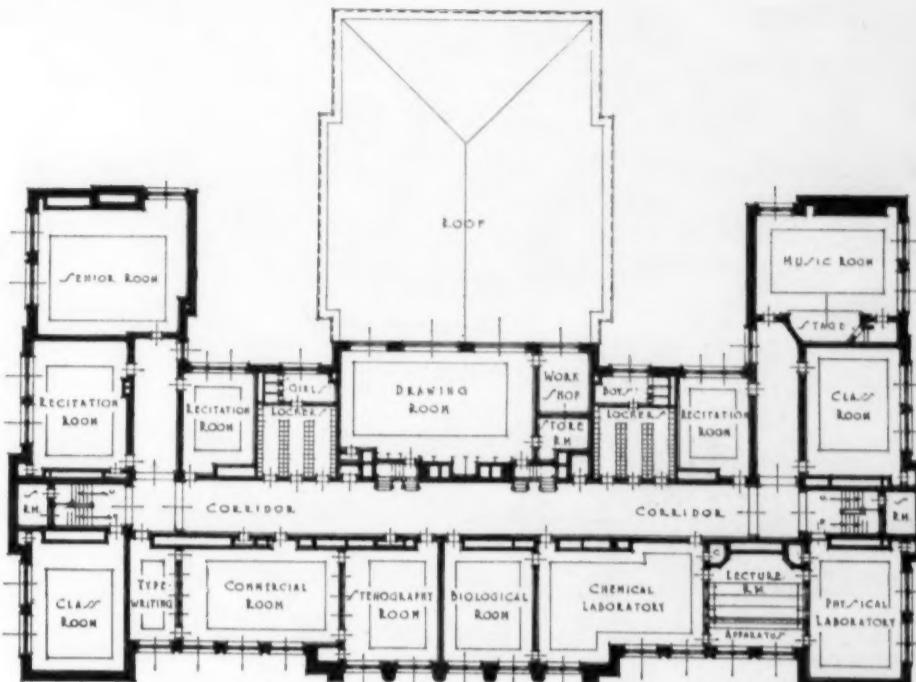
We passed immediately into a classroom. In this room one would expect to find the usual "schoolhouse smell." It was not apparent; at least, it was so much less than what I expected, that I am prepared to repeat what I have said above; that it was not apparent. The ventilation system of this building is the socalled "Wheeler" system, by means of open windows. The heating is direct, by means of large radiators installed under the windows. I passed from room to room and, while I did detect odors in some rooms, under the conditions prevailing as regards occupants, the experience was the reverse of what you find in the average schoolhouse. It was a relief to pass from the corridor into the schoolroom. By this I mean that the air in the schoolroom was very much better than that in the corridor. This feeling of satisfaction seemed to please not only one's sense of smell, but one's feelings, and produced what I have tried to describe with the phrase "physical comfort." The building was clean and showed evidence of a superior janitor.

The *Longfellow School* is in the same district with the *Jackson School*, and is under the control of the same principal. It is a very much larger and a considerably older building, containing twenty classrooms, used by both upper and lower elementary grades. The heating and ventilation in sixteen of these rooms are by means of the "Massachusetts Gravity" system. The air in all the rooms was of a high temperature and appeared to be extremely foul. The vent-ducts were working and there appeared to be a very good upward draft. Some air was coming into the room thru the inlet, but its movement was sluggish. Because of the apparent foul condition and high temperature of the air in the room, I naturally became inquisitive and found that the chain-pull that operated the damper had been securely fastened to the grill, so that an adjustment of the damper was impossible. This appeared in every room in the building.

I met the principal in the corridor,—a bright, intelligent lady who seems to fully understand what she is about. After explaining the purpose of my visit to her, she immediately asked, "Have you been at the *Jackson School*?" She was enthusiastic in her support of the ventilating system in that schoolhouse, and said, "Every time I go into that building, I feel relieved. The teachers are all enthusiastic over the ventilation, and notwithstanding the fact that some of them have been offered transfers to other schools at an advantage to them, have declined the opportunity. The janitor is so pleased with the school, that he has refused only last week a transfer to another building that meant a considerable increase in his salary." I tried to draw from her the reasons for her enthusiasm, and the reasons for her claim that the ventilating system was so much superior to that in the *Longfellow School*, in which we were at the time. She did not give me very good reasons, because of her inability to explain the mechanics in the case, but her preference for the *Jackson School* was emphatic. I called her attention to the high temperature in the classroom in the *Longfellow School*, and to the foul odors, and asked her how she would remedy it, and she answered, "Why we teachers leave that entirely to the janitors. We were never able to get satisfactory results when the teachers tried to adjust the temperature, so now we leave the matter with the janitors, and when the conditions are unbearable, we open the windows."

She led me to the basement, where I examined one of the fresh air inlet chambers, and here I found what I expected,—the windows nearly closed, and very little fresh air entering, only that amount which was possible to bring into the chamber thru the small opening that one would naturally expect to find when a swing-ing window is allowed to drop down, but is not

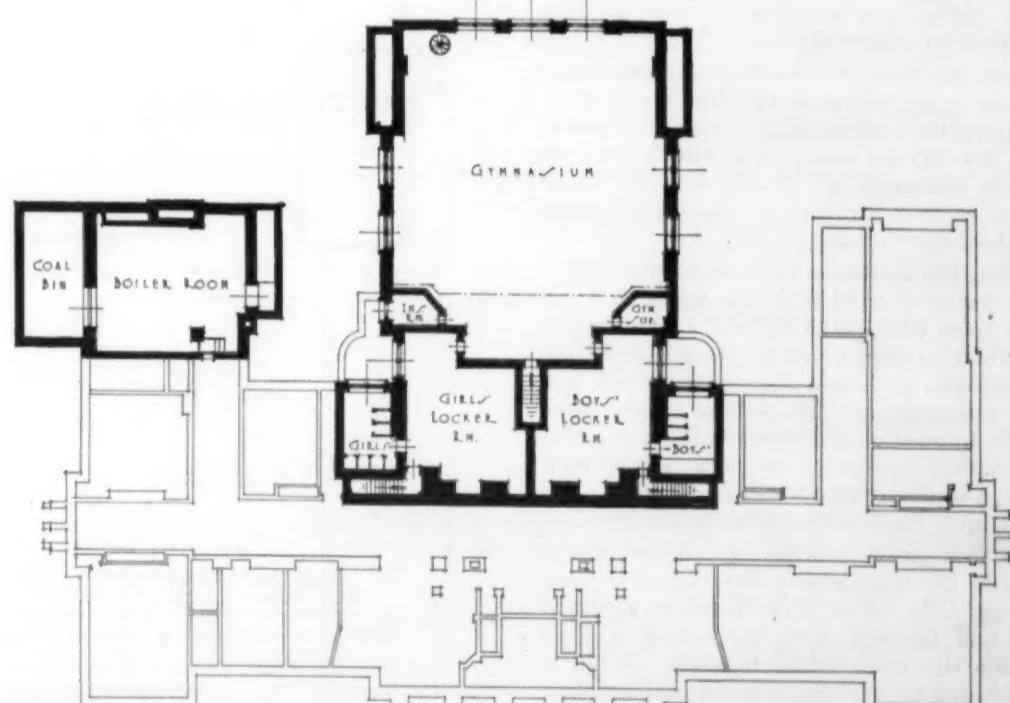
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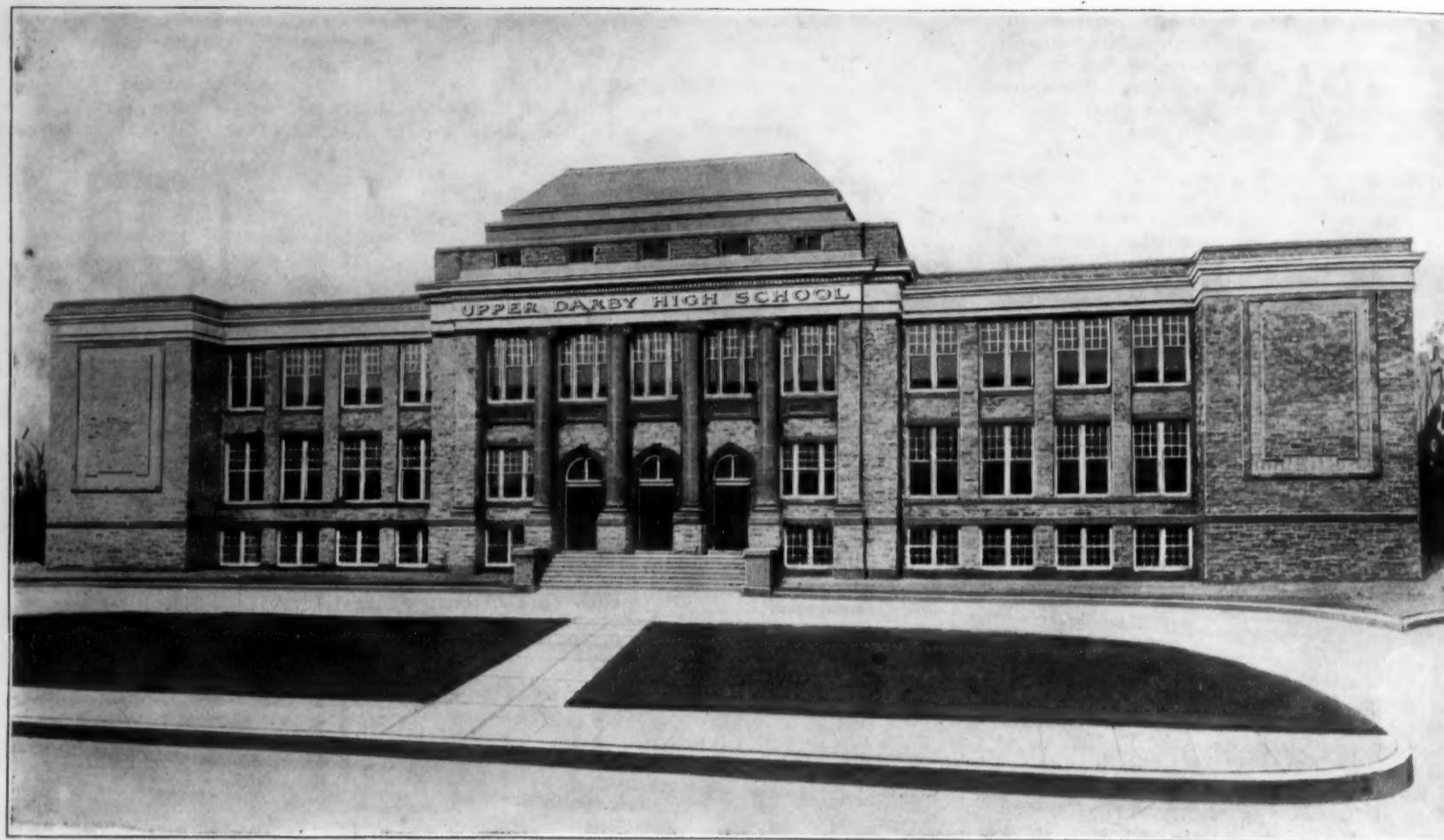
Second Floor Plan, Upper Darby High School, Upper Darby, Pa.



Basement Plan, Upper Darby High School, Upper Darby, Pa.



Sub-Basement Plan, Upper Darby High School, Upper Darby, Pa.



UPPER DARBY TOWNSHIP HIGH SCHOOL, UPPER DARBY, PA.  
Henry M. Reinhold, Jr., Architect, Philadelphia.

#### THE UPPER DARBY HIGH SCHOOL.

By Supt. H. M. Mendenhall.

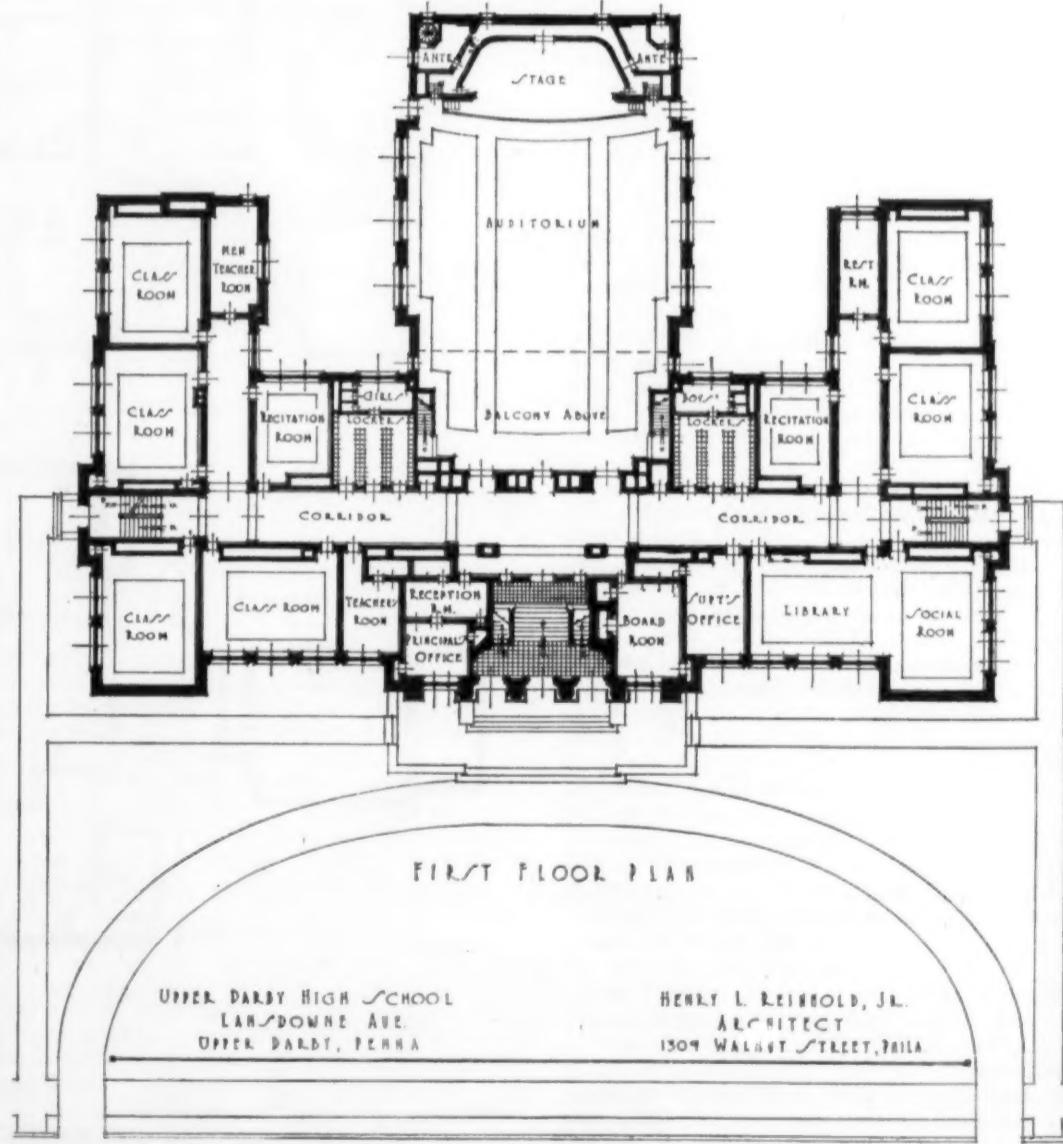
The needs of a district are ever changing along the educational equipment side, especially when that district is located at the terminus of an elevated railroad leading from the center of a large city.

Upper Darby Township is in Delaware County, Pennsylvania, just over the border line of Philadelphia. Several years ago a decided movement toward the suburbs was begun, with the result that many residential settlements sprang up. At first the children who came into the schools from these new homes could be accommodated in the buildings which were already in use. However, soon a demand for larger quarters was made, with the result that Upper Darby Township is the proud possessor of three fine grammar school buildings.

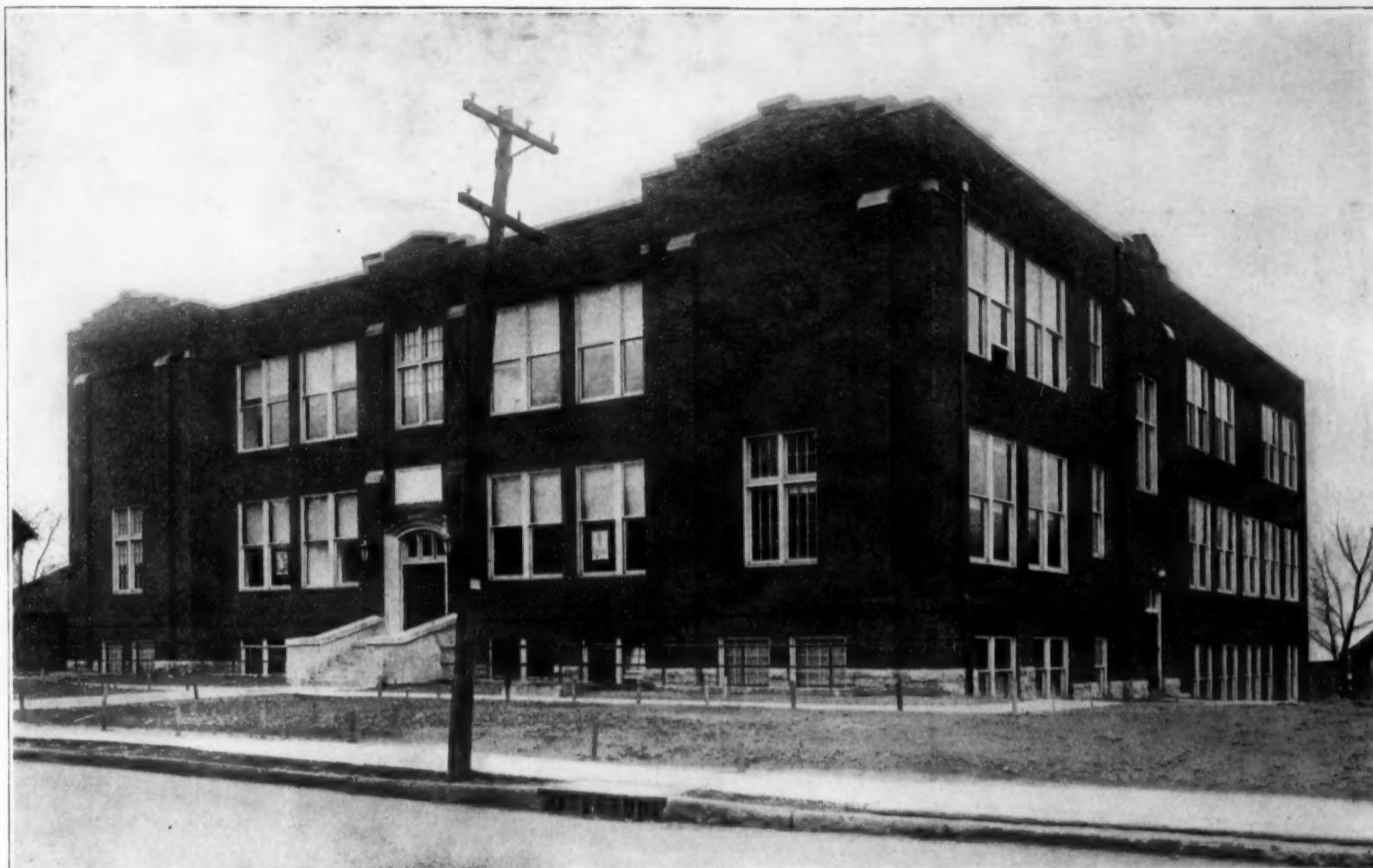
While the work of constructing these buildings was going on much talk was heard about the antiquated high school building. For several years, this was the condition of affairs until the board of education saw plainly that the building was entirely too small for the rapidly growing school enrollment.

During the November election in 1916 a campaign was conducted with the result that the people voted \$250,000 to the board of education with which to erect a new high school building. Fragmentary plans and suggestions which had been accumulating for several years were brought into active and vigorous life once more. Many different school plants were visited with the hope of obtaining something helpful in the line of up-to-the-minute school construction.

The first great question which had to be settled by the board was the location of the new building. The old building stands on a plot of seven and one-half acres of ground, a most desirable site for a school building. When it was decided to use this site the old building



First Floor Plan of the Upper Darby Township High School, Upper Darby, Pa.



HIGH SCHOOL, CORAOPOLIS, PA.  
F. W. Crooks, Architect, Pittsburgh, Pa.

was moved to the side of the school grounds in order to allow the new building to have the proper setting.

While this work was being done several architects were busily engaged working on competitive plans. They were submitted to the board, and Henry L. Reinhold, Jr., of Philadelphia was selected as the architect. This competitive bidding resulted in the award of the contract to Messrs. Butz & Clader of Allentown, Pa.

Work was begun immediately and the corner stone was laid in October, 1917. The scarcity of laborers and the shortage of materials of all kinds have hindered the work very much so that it was impossible to begin work there in September.

Efforts have been made to plan a building which will be suitable for all high school activities.

The cut of the building which appears in this issue gives a general view of its appearance. The cut stone work and trimmings are of Hummelstown brown stone. The main entrance will lead to a corridor which runs the length of the building. Grouped near this entrance are the office, board room, teachers' room and library. Directly opposite the front entrance is the auditorium. This has the inclined floor, gallery and stage, with dressing rooms. The seating capacity including gallery is 900.

Inclined exits lead from the auditorium to the grounds. There are also on the main floor six classrooms, two recitation rooms, girls' lockers and toilet rooms and boys' lockers and toilet rooms.

Besides the heating and ventilating systems in the basement, there is room for domestic science, manual training, sewing, bicycle storage, book and supply storage. In the front of the basement there is a large lunch room.

The science, drawing, music and commercial departments occupy the second floor, together with two classrooms, four recitation rooms and locker and toilet rooms for both boys and girls.

There is no unnecessary ornamentation in any part of the building. Every part is plain but attractive and conducive to good work. The main idea has been to produce a building in which good work can be accomplished and in which the community and all the pupils will take pride.

#### THE CORAOPOLIS HIGH SCHOOL.

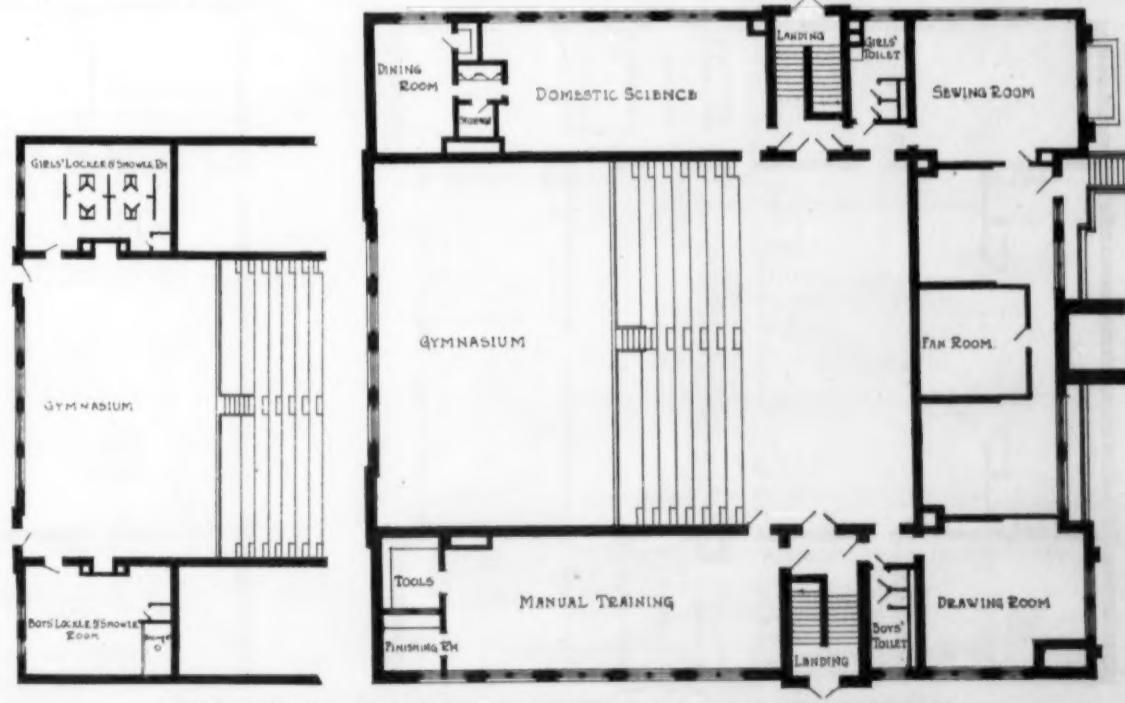
Supt. C. E. Hilborn.

The new high school building at Coraopolis, Pa., is distinctly a war-time building. The contract was let on September 4th, 1917. Efficiency and economy were the ends aimed at, in the planning, the selection of materials and the choice of equipment. It was only due to the urgent need that the work was not postponed till the war was over.

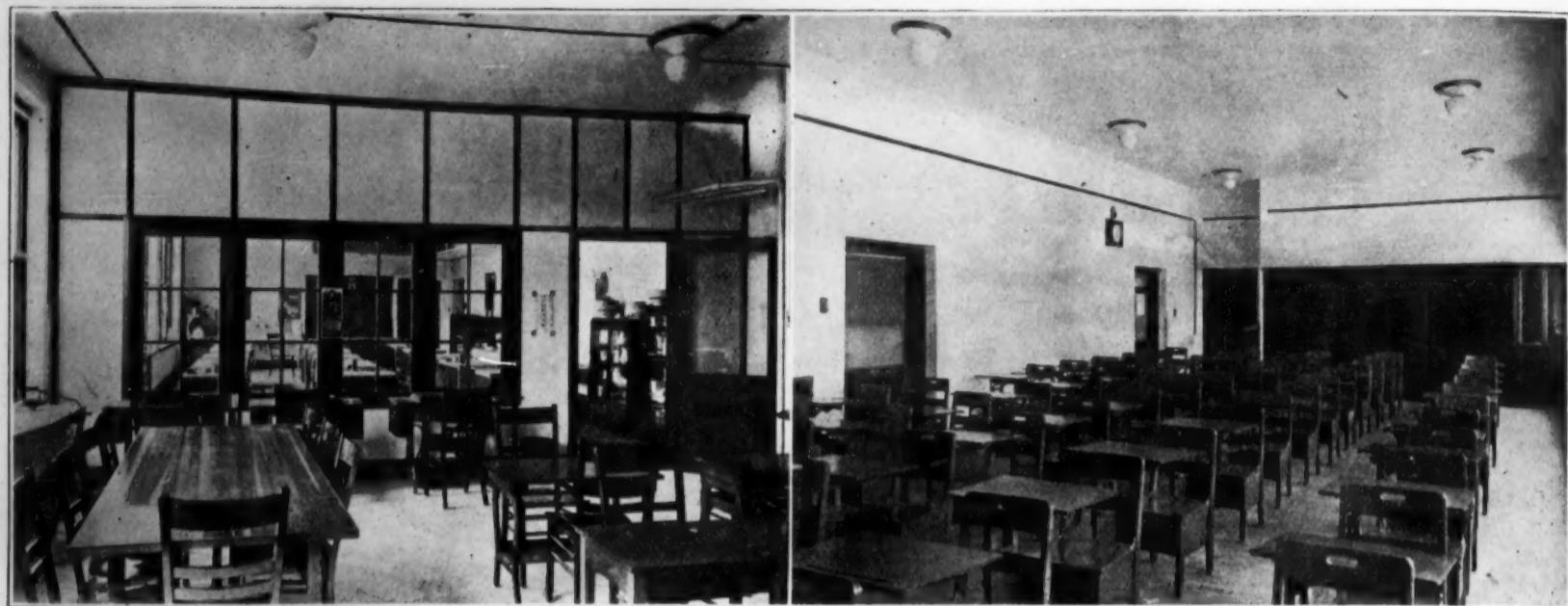
The building is 104 feet wide and 112 feet deep. The lines are decidedly plain but relieved from forbidding bareness by the gray stone entrance, foundation, sills and coping, and by ornamental bronze lamps at the main entrance. The brick selected for the building is a rough art brick in varied shades of red, giving a deep rich coloring, and one which will be practically unaffected by the smoke and grime of the Pittsburgh district.

The interior arrangement of the building is distinctive. On entering the building from the front one passes thru a vestibule 15 feet wide and 21 feet long into the auditorium. The library opens off from the vestibule at the right, and may be opened without giving access to the rest of the building.

The most unique feature in the planning of the



BASEMENT AND GROUND FLOOR PLANS, HIGH SCHOOL, CORAOPOLIS, PA.



Domestic Science Rooms.

HIGH SCHOOL, CORAOPOLIS, PA.  
F. W. Crooks, Architect, Pittsburgh, Pa.

Typical Study Room.

building is probably found in connection with the auditorium. In a building built on the general plan of ours there is usually a U-shaped corridor surrounding the auditorium on three sides. In our building we have simply eliminated these corridors, and added the space so gained to the auditorium. The students pass from room to room around the edge of the auditorium, by way of the outside aisles.

The consequence of this arrangement is that we have a room capable of taking care comfortably of an audience of 900, instead of half that number. Our auditorium is the best room in the town for large public affairs and is being used by the community in a way that shows appreciation. We have found it fully as practical for school purposes as a building of the formal type. The side balconies on the upper floor permit easy passage of groups, and the problem of administration is even simpler than in the more usual type of building. The room has regular opera seating and the stage is fully equipped with curtains and scenery for amateur productions.

A difference in elevation of twenty feet between the front and rear walls of the building permit a gymnasium under the auditorium

which is entirely above ground level. A half story above the gymnasium floor are the domestic and manual training departments, two regular classrooms and the furnace room. All of these rooms are lighted with full length windows, and it is only at the front of the building that light areas are necessary.

The building is of modern fireproof construction thruout. The foundations are of stone, the outside walls of brick and hollow tile. The inside bearing walls are of hollow tile and the other inside partitions of asbestos block. The floors are of hollow tile and concrete construction, overlaid with hardwood flooring. The stair wells are entirely shut off from the rest of the building by wire-glass doors. The stairs are of concrete. The building is as safe as modern building methods can make it.

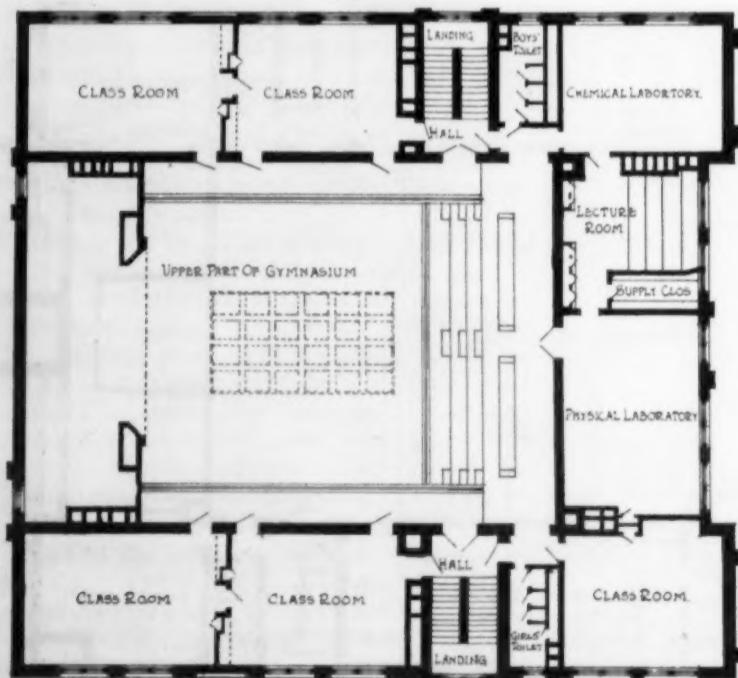
The heating and ventilating system is of the forced hot air type, with automatic temperature regulation. The building is equipped with a complete automatic clock and bell system. The laboratory and special departments are equipped with modern furniture. The standard classroom seating is the chair-desk. Wall wardrobes with rolling fronts take care of the cloaks and wraps. An attempt has been made to make the build-

ing modern and efficient in every way, and we are in a better position to appreciate what we have because of our long-existent need.

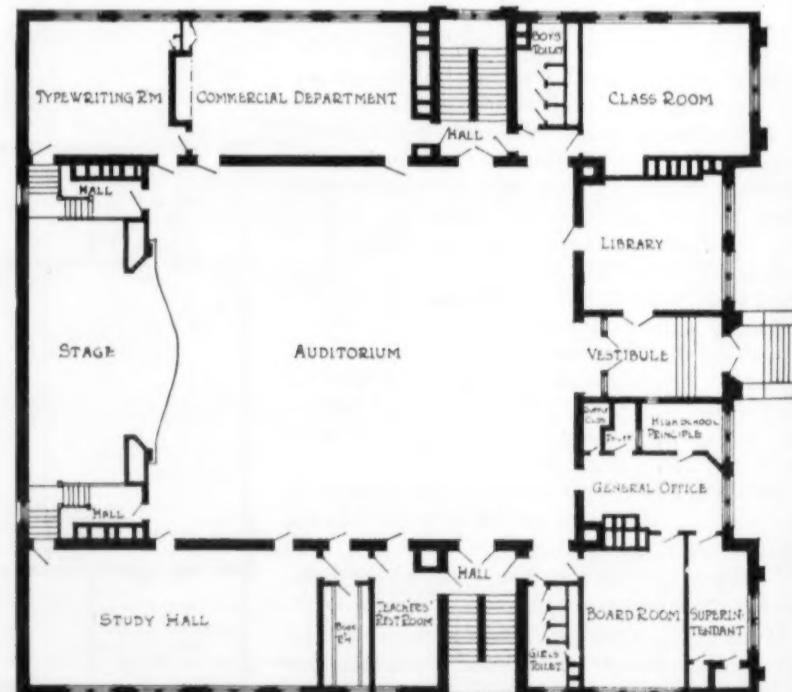
Following is a summary of the cost of the building:

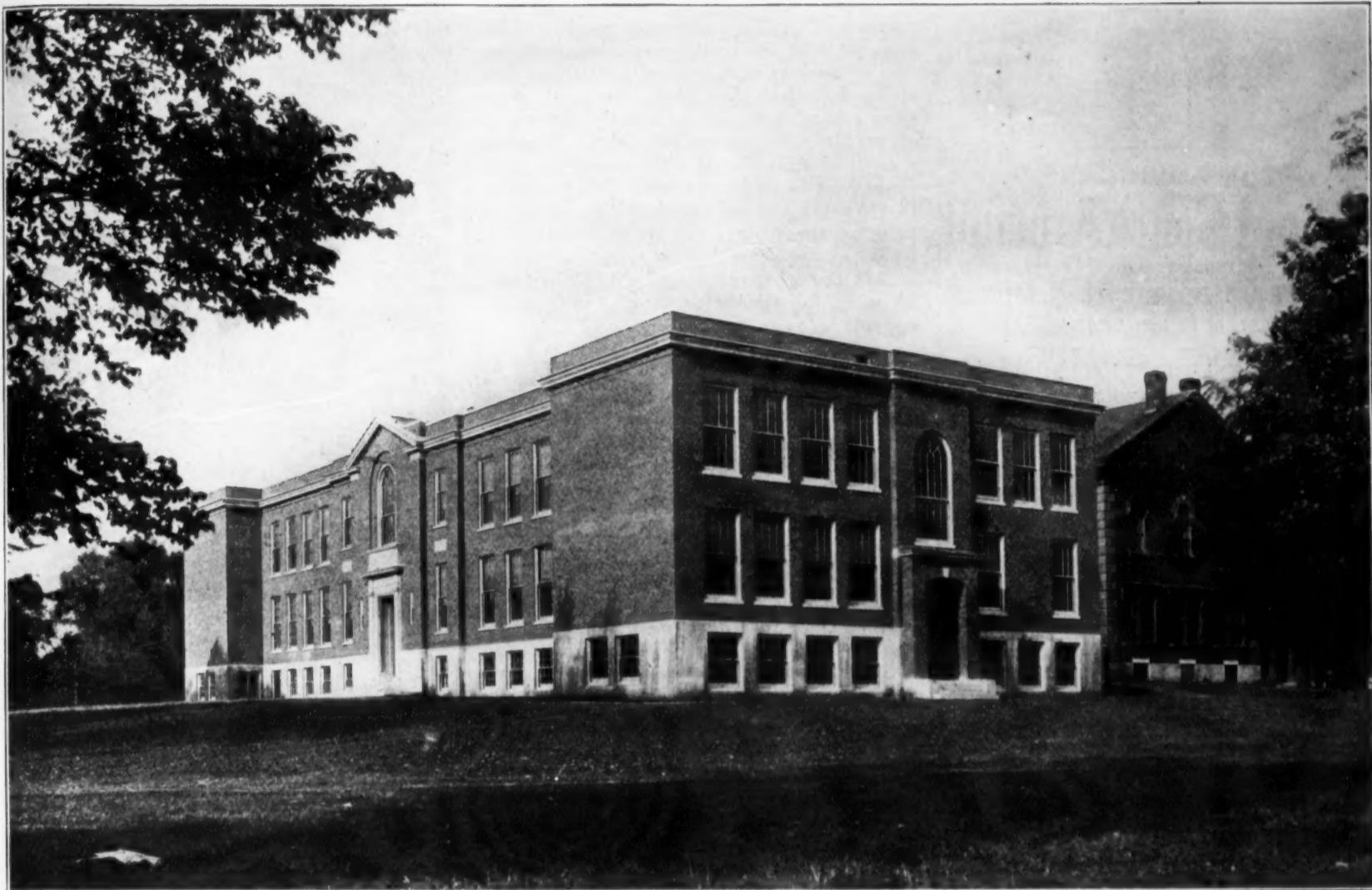
Approximate Cost of Building.

School Site .....	\$ 11,774.75
General Contract.....	83,654.47
Architect Fees .....	5,400.77
Heating and Ventilating.....	15,890.00
Plumbing .....	6,692.58
Electric Wiring .....	4,171.90
Electrical Fixtures .....	1,855.73
Auditorium Furniture and Chair Desks .....	4,535.64
Teachers' Desks, Chairs and Office Furniture .....	2,429.44
Vacuum System.....	1,130.00
Manual Training and Domestic Science Equipment.....	2,238.33
Decorating and Window Shades.....	1,235.00
Wardrobes .....	1,533.52
Insurance .....	495.69
Clock System .....	727.00
Miscellaneous .....	1,599.37
Total .....	\$145,364.19



FLOOR PLANS OF THE HIGH SCHOOL, CORAOPOLIS, PA.





HIGH SCHOOL, ANDOVER, MASS.  
Fisher, Ripley & Le Boutillier, Architects, Boston, Mass.

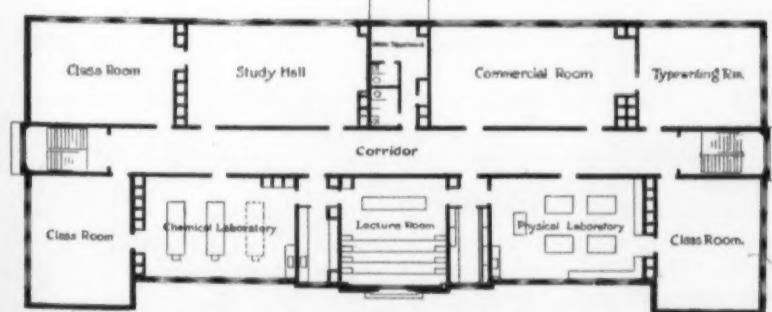
#### THE ANDOVER HIGH SCHOOL.

The high school at Andover, Mass., illustrates in a suggestive way, the use to which an old schoolhouse can be put in connection with a new high school building. When in 1916 the Andover school committee decided to erect a

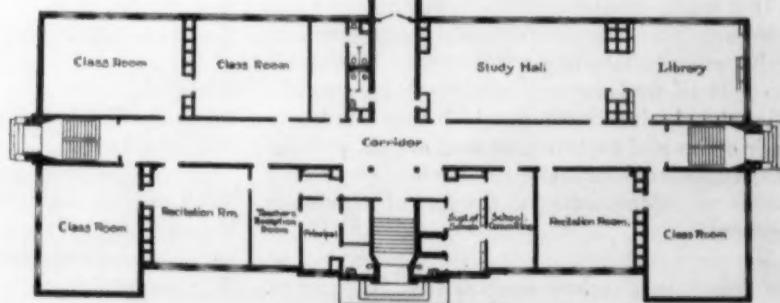
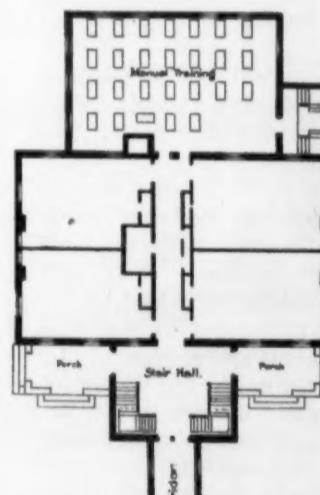
new building for its high school, it found that the old building was perfectly sound, so far as the walls, floors, etc. were concerned and that the community could hardly afford to raze it. It was accordingly decided to make a number of changes in the old building and to connect it by

means of a covered passage with the new high school which was being planned. The result is shown in the accompanying photograph and floor plans.

The new high school building which has been  
(Concluded on Page 107)



Second Floor Plan, High School, Andover, Mass.



First Floor Plan, High School, Andover, Mass.

## School Board Journal



# THE AMERICAN School Board Journal

DEVOTED TO  
LEGISLATIVE AND EXECUTIVE SCHOOL OFFICIALS  
WILLIAM C. BRUCE, Editor

## EDITORIAL

### A BREAKDOWN COMING?

Are American schools facing a breakdown of the teaching force? Have the low salaries, the undemocratic practices in administration, the uncertainty of tenure and the attractiveness of commercial occupations combined in such force that a crisis is at hand? Many observing educators seem to think that a serious point has been reached and that the coming school year will show clearly whether the schools will drop in efficiency or at least come to a standstill. Prominent educators connected with the N. E. A. are free in predicting dire results, but their statements are so radical that we more than half suspect them of wilful exaggeration to gain publicity and to impress Congress.

We are inclined to believe that the unrest among teachers has reached its high point and that the effect of the successful salary campaigns of last spring will bring a decided change in the attitude of the men and women employed in the classrooms and in the administrative offices. In many of the larger cities minimum salaries of \$800 to \$1,000 have been put in force and maximums of \$1,500 to \$1,800 will be available for teachers who have been in the service for some length of time. While the salaries are still inadequate in the minds of a majority of the teachers, they compare with those which salaried men and women in the commercial world are receiving and they are generous considering the difficulties which school boards have been obliged to surmount in finding funds and raising tax levies.

A sore point in the large cities is the result of what teachers rightly consider undemocratic action in the administration of the schools. The feeling is reflected in a group of papers which are printed in this issue of the Journal for the sole purpose of driving home to the school boards and superintendents of the country, the teacher's side of the administrative problem.

The antagonism of teachers and school boards in some cities is as deep-rooted and bitter as that between certain labor unions and employers. In most instances it is entirely unjustified and arises from misunderstandings and differences deliberately created and constantly fostered by habitual trouble makers. Some of those folks are potential, if not actual, bolsheviks, and entirely undeserving of confidence, must less of holding teaching positions.

But much of the unrest of teachers springs from very real causes—from administrative acts which are arbitrary and bureaucratic. These are the acts of businessmen who carry into public office the absolute methods which they employ in their offices and factories, or they are the policies of professional schoolmen whose expertness brooks no independence on the part of mere class teachers.

We need just now a complete restatement of the relations of school boards, superintendents, teachers and the public. Each of these factors

in the scheme of education must understand its respective functions and respect the others. Devices must be developed for ensuring participation of teachers in the planning of school policies and methods, but these must at the same time, ensure to the boards and the supervisory officers their due powers and rights. Above all a spirit of mutual good will, respect and confidence must be again developed. We should not like to see this done by methods that partake of "soft pedagogy," but rather by old-fashioned Americanism which implies a square deal all around, respect of proper authority and a recognition of the teacher as an intelligent public servant.

### NEW YORK ADOPTS NEW RULES.

The New York board of education, at its meeting on July 9th, adopted a series of bylaws governing the authority, the functions and the duties of its officers, the superintendent of schools, the board of superintendents, the associate and district superintendents, the directors of attendance and reference, the auditor, the superintendent of school supplies and the teachers' council. The regulations are only a small part of the entire bylaws of the board which have become exceedingly voluminous in the course of years. The New York schools with their enrollment of 700,000 children and their corps of 25,000 teachers are larger than the combined school systems of the ten next largest cities in the union and the expenditures which amount to \$43,000,000 annually are larger than the entire state government costs of a dozen western states. It will be readily understood that so large a school system must be controlled by very complete and carefully balanced rules and regulations in order that a true form of democratic government may result.

Before the organization of the present board of seven members, the management of the city schools was in reality in the hands of the committees of the board of education while the latter devoted itself largely to unavoidable and never-ending routine. The present board limits itself largely to matters of general policy and precedent and depends upon the paid experts in both the educational and business departments for initiative and for the actual administration of the school work.

It is exceedingly interesting to note that the new rules, while they give the superintendent and the board of superintendents large powers, do not establish a one-man power such as existed for years during the time of Supt. Maxwell. The board reserves for itself the veto power and the power of approval on all such matters as the appointment and dismissal of teachers, the location of schoolhouses, the construction of buildings, the adoption of courses of study and textbooks, etc. The superintendents and his professional cabinet—the board of superintendents—share the actual work of formulating courses of study, fixing standards for teachers, recommending books, recommending the location of school buildings, etc. The superintendent has absolute authority in the assignment of teachers and in their suspension, and he has considerable power too in a variety of professional matters that do not involve fixed policies but only professional discretion.

The new rules of the New York board are in direct line with the best practice in American city school administration. They are an improvement over the old bylaws in that they are considerably briefer, clearer and less detailed. They presume that the superintendent, the auditor, etc., are all professional men with wide experience and considerable foresight in that while they stand for their professional prerogatives, they are quite ready to justify whatever they

may initiate and direct before the duly appointed tribunal of the people—the board of education.

### DUAL CONTROL OF VOCATIONAL EDUCATION.

The bogey of separate control over vocational schools has been held up frequently by schoolmen of the older type, but it has faded into thin air before the light of facts which the Federal Board for Vocational Education has recently gathered. As time goes on the harmony of the state school systems is becoming more and more apparent.

Forty-six of the forty-eight states accepting the conditions of the vocational act have, according to the board, "selected as the executive officer of the state board of vocational training, either the state superintendent of public instruction, the commissioner of education, the secretary of the state board of education, or the chairman of the state board of education."

Nine states have no state boards of education. "Thirty-two of the 39 states which have state boards of education, have designated these boards as the state boards of vocational education. Another state makes its board of agriculture its vocational board, and still another makes its board of industrial education the state board for vocational education.

"Only six states have created separate boards for vocational education, and in each of these cases the state superintendent of public instruction or the secretary of the state board of education is the executive officer, and public officials interested in general education are ex-officio members of the board."

Wisconsin is the only state which has set up a complete dual system of control, but here there is such an interlinking of the state superintendent's office with the state board for vocational education and so much identity of local school personnel that the effect is harmonious.

### A SPIRIT OF COOPERATION

An example of the proper cooperative spirit which should actuate both school boards and teachers was given recently by the school people of San Diego, Cal. The teachers requested an increase of \$300 in salary and the board agreed that they deserved it. The actual appropriation of funds, however, depended upon the board of supervisors and there was question whether a sufficient increase would be granted to make the raises possible. The board and the teachers, therefore, incorporated in the contracts with the teachers, a clause declaring that the raise could be paid provided the money were forthcoming, and that should the increase be not available, such part of it as the funds allow be paid. The board and the teachers combined to ask the supervisors for the needed moneys.

As an illustration of mutual confidence and good will, the above is noteworthy. It points to a desirable condition which would aid school affairs in every city and would remove the obstacles which many school boards meet in approaching city councils and state legislatures with reasonable and possible requests for additional funds.

### SEEK PRINCIPLES.

It has been the policy of the SCHOOL BOARD JOURNAL to print news of school happenings and notes on school board affairs for two purposes: First, to record important events and advances in school work, and, second, to reflect tendencies and to illustrate sound principles of school administration. Many of the articles which have been published have told of local projects and achievements for similar reasons of bringing out principles and recording progress.

It is well for school board members, as well as

for superintendents and secretaries, in reading the columns of the Journal, to seek underlying principles as well as plans and methods. Someone has said that the most original man is he who can adapt to his own situation and use the greatest number of ideas and suggestions. That applies especially to school affairs. A plan for reducing truancy may not be fitted for any town, except the one described in an article. Still, the fundamental idea may be adaptable to many cities. So, too, a plan of committee organization may well contain a generally applicable principle, yet be a failure if followed blindly.

#### ECONOMIC CLASSES IN AMERICA.

The movement for unionizing teachers is, in our estimation, a step toward placing the occupation of teaching in a definite economic class rather than an aid toward making it a profession. Aside from the direct injury which is being done to the teachers as a whole by some of their unwise colleagues, there is an undemocratic fallacy in the proposition that deserves mention.

There have been in the United States no fixed economic classes. Men have risen from poverty to wealth as did the late Andrew Carnegie; they have changed from employees to employers; such humble workers as barbers have become professional men like doctors. America has meant opportunity to immigrants as well as native born and no true American of the old school would want his boys to be limited to his occupation or his social status. The schools are the one single large reason for this happy condition.

To identify teachers definitely with the labor movement would be running contrary to the democratic condition just described. It would be an acceptance of the theory that there is and should be a struggle between those who work and those who employ workers and would inevitably cause all teaching in the schools to be colored by the doctrines of class hatred and class exploitation. It would aid and abet the socialistic elements who are making insidious propaganda of just this kind.

On the idea of fixed economic classes Nicholas Murray Butler recently observed:

"Those who teach the justice and the necessity of a class struggle are not believers in democracy. They do not wish to lift all men up; they are bent upon pulling some men down. Their program is one of destruction, not construction, of reaction, not progress. They do not believe in the equality of men before the law and in the equality of opportunity for all men and all women; they believe in a cruel, relentless, exploiting class. In other words, they believe in privilege and not in free government. Class consciousness and democracy are mutually exclusive. Its logical and necessary result would be to tear up the Declaration of Independence, to destroy the constitution of the United States and to put in their stead a charter of bedlam under whose provisions might and might alone would make right. Every movement and every effort to this end should be challenged pre-emptorily in the name of the American people, their traditions and their ideals. It is as vitally important to oppose autoocracy in this form as when it comes clad in imperial robes and accompanied with all the instruments of militarism."

#### HEALTH IN THE SCHOOLS.

During the month of September nearly twenty-two million young folks, varying in age from the little tots in the kindergarten to the serious seniors in the university, will return to the classroom and will undergo the health dangers incident to the change. From outdoor life they are transferred suddenly to crowded classrooms, to daily hours of physical inactivity, and to close association with each other under conditions

that are not always the most sanitary. It is not to be wondered that each September records a big rise in children's illnesses, as compared with July and August, that the proportion of contagious diseases such as measles, and scarlet fever, grows alarmingly. Every urban health department is on the alert for an epidemic among children within a month after schools reopen.

It would seem that the experience of the last year should make school boards alert in anticipating contagious diseases. No school year in the memory of present school officials has been so disturbed and disorganized, so hard on teachers, and so damaging to children as has been the year of the influenza epidemics. Whether there will be outbreaks of the same disease during 1919-20, no one can predict. But school boards can take precautions by proper medical inspection and supervision, and by adequate inspection and constant maintenance of hygienic conditions of school buildings. The first week in September is not too early to start.

#### SCHOOL BUILDING POLICIES.

The high cost of construction combined with the inactivity of two years makes the present building problem of some school boards extremely difficult. Shall the character of the facilities for education be reduced? Shall construction be cheapened? Shall temporary measures of relief be adopted?

To the first question the public will give an emphatic negative answer, if it is at all in the confidence of the school board. To the second, the school board's own sense of responsibility for the safety of the children and for the best and most economic use of school funds will protest and refuse. The third question alone affords an opportunity for a satisfactory solution.

While each situation requires study and an individual solution, it is hardly possible that some compromise cannot be found. In this connection, Portland, Oregon, seems to be unique in resorting entirely to temporary barracks to house its surplus school population. The available building funds of every city school district can be divided so that a portion is devoted to complete, permanent school buildings which are fire safe and in every way adequate to meet the educational and community requirements. Strictly temporary buildings may then be erected to give every child, who is not placed in a permanent school, a comfortable, sanitary place in a classroom that is not crowded and stations in an assembly hall and a manual training shop or a household arts room. The problem is one of properly apportioning the funds between the two types of schoolhouses.

Just here it may be well to point to a danger resulting from the successful use of temporary buildings. It is very easy to fall into the attitude of mind of letting well enough alone and of so continuing temporary school housing indefinitely. The existence of makeshift schoolrooms no matter how satisfactory they may be, should be a reproach to a community and a spur to the school board to seek adequate building funds.

#### SEPARATE BONDING OF SCHOOL DISTRICTS.

In promoting the very laudable movement of separating city schools from municipal governments, school boards have been led to favor separate power of bonding as well as of taxing. The argument is made that since the city schools are in reality state institutions, the school board should have the independent power of ordering bond elections for any sums which they need for building purposes.

Theoretically, this argument is sound, but in practice it works to the disadvantage of both

school district and municipality. The very simple reason is that investors shy at bonds secured by a community which has largely extended its bonding limit by authorizing two bodies to place obligations on the same property. There is a decided prejudice against school bonds which are issued independently of the municipality unless the combined bonding limit of both school board and city do not exceed a conservative limit of seven per cent which ordinarily obtained in municipalities.

School boards will do well in our opinion, to exercise prudence in asking for high bond limits for school purposes. Independence from the municipal bonding authority is not necessary. A fair share of the total limit granted the city is sufficient provided the school board has the right to determine when and how its credit is to be used.

School boards err, too, in requiring that their bonds be made payable only in a local bank. For smaller communities, such an arrangement is a decided disadvantage and interferes with the natural market for bonds. It is highly desirable that school bonds be made payable not only thru a local banking institution but also in some central local banking city like New York, Chicago, or the city of the federal reserve bank in the district in which the community is located.

Politics and schools do not mix well as every community learns again and again from bitter experience. Chattanooga is just now engaged in a fight due to the dismissal of Supt. Winder for purely political reasons. Citizens who have objected to the appointment of Mr. R. L. Jones as successor to Mr. Winder, have brought an injunction suit on the basis that Mr. Jones is not a resident. The suit has brought into question the security of the positions of some forty teachers and the schools may be seriously embarrassed by resignations or enforced dismissals.

Good resolutions are conventionally made at New Year. Here is one for the school board member for September:

- (1) I will visit the schools for at least two hours each month,
- (2) I will spend at least an hour weekly in reading some worth-while literature on school administration.

A British teachers' magazine ridicules the suggestion that teaching as an occupation be stabilized by granting knighthood to a number of teachers each year and points out that adequate salaries will go farther than a title that is not hereditary in origin. We in America have surrounded teaching with a social position that has been poor pay for unselfish service. In principle, we are not unlike our British cousins.

Education is the slogan of the new army of the United States. Advertising matter issued to obtain recruits contains frequent references to the educational advantages of the marine corps, the regular army, the navy, etc. Every army post is now an educational institution and every navy yard is a vocational school.

New York City is to undergo shortly another survey of its school system. The board of education will manage the undertaking and the business side of the schools will be especially studied. The survey is not to find fault with existing conditions so much as it is to suggest remedies and improvements.

Mr. Edgar L. Cotting has been elected Business Manager of the Board of School Commissioners of Mobile County. Mr. Cotting will have control of all the business affairs of the schools in the city and county of Mobile. His offices are located in Barton Academy, which is the high school of the city of Mobile.



# AIDS TO FUEL ECONOMY

While the federal control of fuel has been removed, it is likely that conditions will exist throughout the United States during the coming winter that will make fuel economy as important and necessary as in 1918. There is still a shortage of coal and a lack of easy transportation and the growing labor troubles in the coal mining districts and among railroad employees all point to shortages that will be larger in the winter than they have been during the first nine months of the year.

School boards will be wise not only to insure an adequate coal supply but also to make every possible arrangement to forestall any waste or uneconomical use of coal supplies. Even where coal is plentiful, the high cost of all materials entering into school service and the general insufficiency of school funds make economy imperative.

In connection with fuel economy, it is well for school authorities to consider the causes of high coal consumption and to obviate such as can be readily managed. A circular issued last fall by the Massachusetts Fuel Administration points out three causes which usually contribute to the burning of more than a reasonable amount of coal in school plants:

1. The structural condition of the buildings.
2. The condition and equipment of the heating plant and the fuel.
3. The lack of supervision by the school board over the buildings, janitors, teachers and classes looking to the fullest cooperation for economy in the use of coal.

#### Faulty Structural Conditions.

A bulletin prepared by Mr. Alfred S. Kellogg, consulting engineer, and issued by the Massachusetts Fuel Administration makes the following valuable suggestions concerning the structural condition of buildings and improvements which will obviate coal wastage:

*"Leaky Windows.* It is doubtful if a window of the average size found in classrooms, having a hole in a single pane of glass six inches or so in diameter would be tolerated. Yet such a hole in many cases does not fully represent the leakage of air around the casing and sash of a schoolroom window. If there are five or six windows in each room it is not difficult to realize where the coal goes. Metal weather strips are coal savers. They are better than the usual double window. Neither, however, entirely prevent leakage and attention should also be given to *caulking the openings between the casings and walls.*

"What happens with leaky windows is that on the windward side of the buildings the air leaks *inward* and greatly cools the rooms, while on the lee side the air leakage is *outward*, taking with it the heat that should have gone to the windward rooms. This condition compels a forcing of the heating apparatus and consequent loss of fuel. Weather strips or double windows should be applied to the windows on both the windward and lee sides of the building.

*"A Shut-off Damper for each vent flue* is a necessity if a great waste of fuel is to be prevented. Their absence (or, if installed, the lack of attention), causes the rooms to become excessively cold at night and increases the amount of coal burned.

"A curved damper at the vent outlet from a room is rarely tight fitting. A well fitting curtain that can be drawn down over the outlet is much better, but it should fit tightly to the sides of the opening to prevent air entering the room from the flue due to "back drafts," as well as to prevent leakage from the room. A pair of light wooden doors would serve the same purpose. Whatever device is installed should be

readily accessible and the janitor should be given explicit directions to close all such dampers within an hour after the close of school sessions during the heating season.

*"Fixed Dampers.* In addition to the shut-off dampers mentioned above every heat flue and every vent flue should have a damper of heavy design which should be adjusted to give the proper volume of air, and then rigidly fixed in position. They should be placed where they cannot be reached and changed by unauthorized persons. No manipulation of this damper from day to day is necessary.

"Where a supply fan is installed the adjustment of such fixed dampers may be made at any time, but in a gravity ventilating system it can be made only when the outside temperature is below freezing. The adjustment of the fixed dampers can only be made with accuracy by the use of an anemometer by an engineer familiar with its use.

*"General Repairs.* Under this heading suggestions are made for repairs that affect coal saving.

"The ceilings of the cold air and ventilating chambers may need replastering or covering with metal. Holes in such ceilings permit the circulation of air thru the heating apparatus

and rooms that is far from sanitary; they increase the fire hazard and, when found in *cold air room ceilings*, are the cause of cold floors in the classrooms. A state law requires such ceilings to be of metal or of metal lath and plaster.

*"Stop-offs* should be installed around "indirect" stacks to prevent by-passing of cold air, and the casings of stacks found to be in bad condition should be repaired.

*"Cold air windows* in many cases may not close tightly, allowing cold air to leak into the buildings at night.

*"Openings around steam and air pipes* passing thru the brick walls of heating stacks should be stopped."

#### Condition of Heating Plant and Fuel.

In discussing boilers, Mr. Kellogg suggests that the brick settings of all boilers should be carefully examined for leaks. "Cold air due to the chimney draft is very readily drawn into the combustion chamber thru the seams and cracks in brickwork and around pipe and door openings. Cold air thus drawn thru the setting absorbs the heat which is carried up the chimney and lost, thus increasing the coal bill. Leaks can be easily located by the use of a lighted candle the flame of which will be drawn into the setting by the chimney draft.

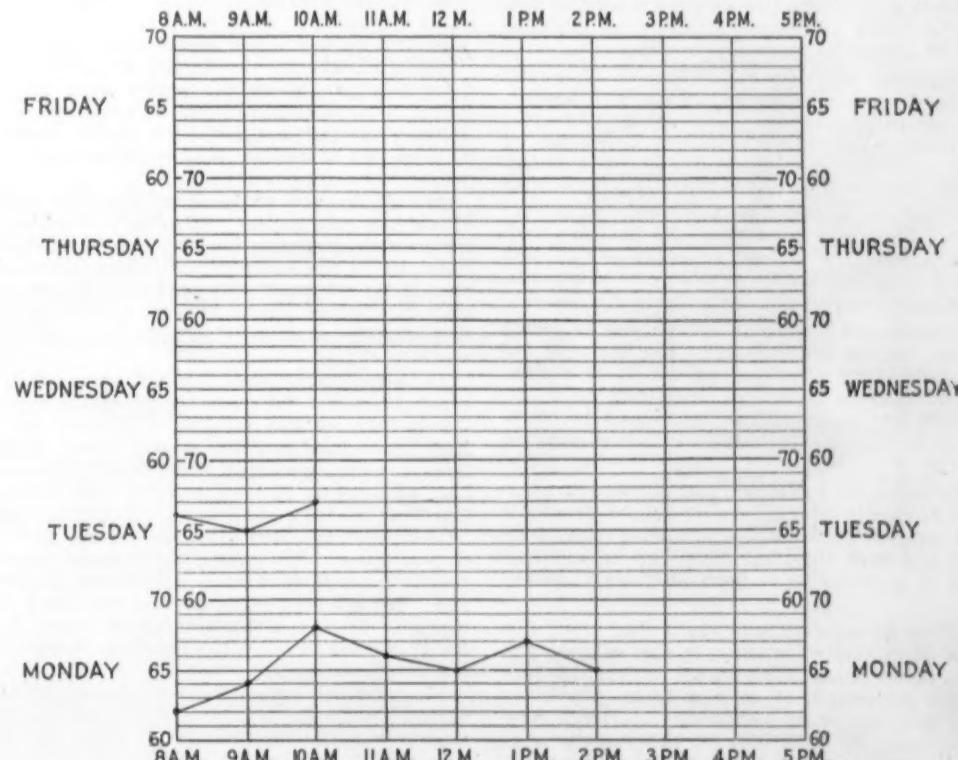
"To stop such leaks, have applied to the entire setting and top a *coating of plastic boiler*

(Continued on page 62)

#### — SUGGESTED TEMPERATURE RECORD —

Room No. _____	Week beginning _____				
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8 A.M.	62	66			
9 -	64	65			
10 -	68	67			
11 -	66				
12 M	65				
1 P.M.	67				
2 -	65				
3 -					
4 -					

#### — SUGGESTED TEMPERATURE CHART —



Suggested Form for Record Card and Chart to be used by Janitors and Teachers in Maintaining Healthful and Economical Temperature in Schools.



## SCHOOL BOARD NEWS

### SOLICITING AND ADVERTISING ABOLISHED IN RHODE ISLAND SCHOOLS.

The city superintendents of Rhode Island, at a recent conference adopted thirteen rules for keeping out of the schools money-raising schemes and solicitations for special causes. The rules are similar to those long in force in Providence but have now been made uniform for the state as a whole. The rules which are to be strictly enforced are expected to put an end to abuses and make the work of the schools uninterrupted and more generally effective.

1. The aims of the regulations, as set forth in the opening paragraph, provide that "inasmuch as the schools belong to all the people and are conducted for the benefit of all the people, it is inconsistent to permit the pupils to turn aside from prescribed functions unless, in the judgment of the constituted authority, such a course is without question for the general welfare and not prejudicial to the interests of the pupils." The remaining provisions are as follows:

2. "No person should be permitted to address the pupils of a public school without the authority of the superintendent or the school committee." This ruling was made necessary by the number of requests from people interested in various organizations who wanted an opportunity to present their particular cause before the children of the schools.

3. "There should be no advertising of any matter or exploitation of any cause in the schools thru the distribution of circulars or articles or by announcement unless it is related directly to the educational interests of the schools and has the approval of the superintendent or the school committee." The third principle was made necessary by the sending of circulars and advertising matter of all kinds to the schools for distribution.

Advertising schemes thru the schools have been tried at different times and this new rule is to prevent that sort of promotion. For instance, in the past, numerous private educational institutions have endeavored to reach the graduating classes of grammar schools to present their line of work to the pupils. In many instances the pupils would be impressed with the suggestions of these schools and would be inclined to stop their high school training to take up the business college work with the immediate end in view of earning money. While this is recognized as perfectly legitimate, the school authorities prefer the children to receive advertising material outside the school premises.

4. Requests for lists of addresses of pupils are to be denied those asking them, and permission is not to be given to copy lists of addresses from school registers. To secure addresses of families with children of school age is a profitable way of finding a fertile field for advertising commodities of interest to parents with school children. The superintendents feel that the children's addresses and school registers are private matters and should not be available to those who are seeking a market for their wares.

5. Exaggerated instances are chosen to prove why these rulings are necessary, tho the need for rule 5, forbidding soliciting agents to interview pupils or teachers in school buildings, is plain, since there are many things for pupils to learn and comparatively little time in which to acquire knowledge.

6. Photographers also are not allowed to take pictures of pupils or teachers on school premises without proper authority. This rule has been partially enforced for some time, tho in outlying districts it may not have been so clearly understood.

7-8. Principles seven and eight deal with the question of collecting money in the schools for all kinds of purposes. The school authorities feel that "the collecting of money from pupils at school should be very carefully restricted and permitted only by authority of the superintendent or the school committee." The notice continues: "To place children under the necessity of either contributing or being publicly noted for the failure to do so is unfair and inconsistent

with the theory that the schools are entirely free."

All kinds of attempts to collect money are discouraged under these rulings even old-fashioned class pin, class banquet committee funds as well as attempts to urge children to pledge definite sums.

"The difficulty of asking children to pledge definite sums," said one of the grammar masters, in discussing the new rulings, "is that children have, as a general rule, no definite income. They make a pledge in good faith, intending to fulfill it and then are unable to come anywhere near keeping their pledge. This is a bad thing. In my school I even discourage the collecting of money for class gifts tho I have allowed the graduating classes to be responsible for an entertainment to raise money for a gift to the school, for an entertainment does not take the money directly from the pockets of the fathers and mothers."

9. "It is inadvisable to resort to methods that involve the recognition of special distinctions or privileges for groups of pupils since such practices are a hindrance to the inculcation of the spirit of democracy that is based on equality." This rule goes on to state that membership in welfare organizations and participation in work should pertain to the entire schools rather than individual classes.

In commenting upon this regulation, it is suggested that all distinctions of this sort be made a matter of class distinction rather than distinction of individual pupils as it is more democratic and more American. This same thing is true in regard to the question of prizes. For decades people have thought that it was a fine thing to offer prizes to pupils. A large number of educators have come to doubt the advisability of offering prizes in lower schools for individual attainment. The younger children have not sufficient poise and equanimity for offering of prizes to be of benefit to them. The discouragement felt by the children who fail to receive prizes more than offsets the advantages gained by the individual who wins the prize.

10. "The practice of offering children prizes or special rewards for essays or other accomplishments as a means for the promotion of any cause should not be permitted. It involves unwise discrimination and the intended benefits may be secured by less objectionable methods. Moreover, the educational benefit that is sought by such prizes is usually included in the regular curriculum of school work as far as it is deemed advisable by school authorities." Certain principles that might be learned by the pupils in writing essays, for instance, on suggested subjects for prizes should be taught as far as advisable with the regular school work or else we have failed in our teaching."

Where contests still are permitted in the schools a change has been made in the method of arranging the affairs. "The great blunder in the past was making the affairs conspicuous and allowing parents and friends to be present. Now contests are arranged simply and the whole affair is as inconspicuous as possible. Along this line was the ruling made some time ago that the graduating classes should not be allowed to display flowers. When the pupils were allowed to have flowers some of the children with many friends would appear with great masses of flowers, while others, who were not as well off, would have almost nothing."

11. In regard to local or national organizations, the rule reads: "Requests of either local or national organizations for the introduction of patriotic or philanthropic activities in the schools should be accepted with caution and discrimination to prevent duplication or confusion and an unwarranted amount of interference with regular work."

In commenting upon this ruling a principal of a school said: "We believe in collecting money for certain worthy objects. Last year we had a Red Cross fund and the whole school pitched in once a week, perhaps, on Friday afternoons for half an hour or an hour and did Red Cross work. Our war savings societies are being reorganized to continue the War Savings Stamp and Thrift Stamp work. We collect money for Decoration Day to place flowers upon the graves of the veterans. We are now collecting money for a French orphan. It is a difficult thing to draw the line, for it is good to teach the children to give money for worthy causes."

The principles have been drawn up to help individual principals to determine what questions they may settle for themselves and what may be referred to the superintendent or the school committee. They tend to discourage the exploitation of unnecessary causes thru the schools and make it easier for legitimate and important causes to

secure a hearing. The superintendent and the school committee are to be referred to in all cases of doubt. Worthy solicitations will not be barred, tho solicitations in general will be restricted. Children will not be over-taxed but the new rules still make it possible for children to learn the joy of giving and the pleasure of service while they are in school.

#### BUILDING AND FINANCE.

The cost of education has increased \$2.52 for each pupil in the Philadelphia schools during the past year. In the preceding five years the cost increased only \$1.08.

State Supt. E. C. Brooks of North Carolina announces that approximately \$6,500,000 will be spent on new school buildings during the next year. The cities will spend about three million dollars, the smaller towns about two million, and the rural districts about one million and a half.

In a circular letter to the superintendents of schools in his state, Supt. Brooks lays down a set of six principles which he believes should serve as a guide in the planning and erection of school buildings. These principles are as follows:

1. In the larger towns and cities a complete building plan should now be prepared sufficiently comprehensive to provide for their needs for the next generation, and what building is done this year should be done with a reference to this plan. The location of the buildings has much to do with the cost of conducting the school, for buildings may be so grouped as to simplify the grading and classification of pupils, facilitate instruction and reduce the total cost of conducting the school.

2. In every town and city the ground selected should be sufficiently large to provide ground for athletic field and space for teacher's residence and for any enlargement of the school building. This is exceedingly important because as the evidences show today many towns are not going to considerable expense because such foresight was not exercised some years ago.

3. The plan of any building under sixteen rooms should be arranged in units so that one unit at a time may be added. This will reduce materially the cost of building in the future.

4. The smaller towns would find it very beneficial to lay plans for one large plant with grounds amply large to meet all future needs. Having secured sufficient grounds now the cost of land will not be an item in the future.

5. Whenever an auditorium is provided for, if it is so constructed that it may be used also for a gymnasium, the students will get the double advantage from it and there will be an economy of the use of public money and afford better educational opportunities for the children. The classrooms may be so grouped around the hallways and sliding doors may be provided so that classrooms and hallways may be converted into an auditorium. It is wise to make this double use of the auditorium.

6. A good architect is the least expensive and buildings should be erected that are safe from fire and of substantial construction, and one economy in constructing a building is in utilizing all the available space. It is poor economy to put large sums of money into a building cut up into large hallways and small spaces that cannot be used with profit to the pupils. Proper regard should be had for lighting, heating and ventilation."

The board of education of Atlanta, Ga., is contemplating an action in the courts to obtain for the public schools 22 per cent of the city's funds in addition to the sum of \$131,000 which the state will pay directly. The action follows a claim made by the members that since the schools are no longer under the control of the city council, that the state school fund should be paid directly to the board and not to the city comptroller, as has been done formerly. The council proposes to deduct the amount of the state fund from the city's school appropriation and give only the remainder to the board.

The school board of Milwaukee has adopted a budget of \$3,251,458 for the next year. There is an uncommitted balance of \$20,073 in hand.

A controversy has arisen between the board of education of New Haven, Conn., and the city board of finance relative to methods of presenting bills and vouchers for approval by the city authorities. The controversy arose thru the presentation of a bulk voucher for \$40,000 designated simply as special expenses. The city authorities are of the opinion that the exact nature of the purposes of the money should be designated and they have ruled that the board shall hereafter set forth the items for which money is requested whenever a request for funds is made thru the board of finance.

(Continued on Page 62)

# Another endorsement of Victor Educational Supremacy

A few of the many institutions of learning in which courses in Music Appreciation were given this summer illustrated with the Victrola and Victor Records:

Columbia University, New York City  
 New York University, New York City  
 City College, New York City  
 Cornell University, Ithaca, N. Y.  
 Western Reserve College and  
 Normal School, Cleveland, Ohio  
 Drake University, Des Moines, Iowa  
 Des Moines College, Des Moines, Iowa  
 University of Illinois, Champaign, Ill.  
 University of Michigan, Ann Arbor, Mich.  
 University of Indiana, Bloomington, Ind.  
 University of California, Berkeley, Cal.

University of Arkansas, Fayetteville, Ark.  
 University of Nebraska, Lincoln, Neb.  
 Ginn & Company Summer School,  
 Lake Forest, Ill.  
 Silver Burdett Summer School, Boston, Mass.  
 Silver Burdett Summer School, Evanston, Ill.  
 New Jersey Summer School, Ocean City, N. J.  
 Maryland Summer School, Ocean City, Md.  
 Connecticut Summer School, Danbury, Conn.  
 School of Music, Northampton, Mass.  
 State Campaign, South Dakota

*Also a very long list of Normal Schools and countless County Institutes.*

These educators in charge of this formidable list of institutions have taken this action because of the well recognized supremacy of the Victrola, Victor Records, and the Victor Educational Plan.

In the schools, this great country places a trust—the responsibility of directing the development of the child into the citizen.

The superintendents, principals, and teachers are true to that trust when they give the children the advantages of a completely balanced education, the practical idealism which arouses the spirit, trains the mind, and develops the body.

Equip your schools with Victrolas and Victor Records.

For full information, write

Educational Department

Victor Talking Machine Co.  
 Camden, N. J.



To insure Victor quality, always look for the famous trademark, "His Master's Voice." It is on all products of the Victor Talking Machine Company.

# Victrola

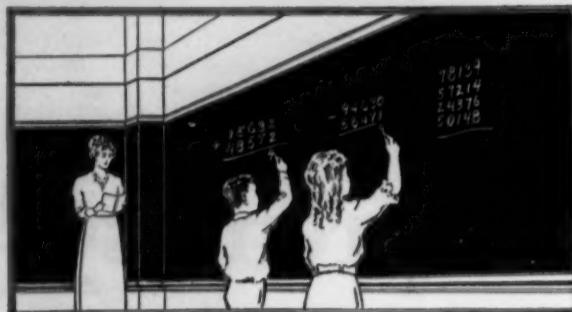


Victrola XXV, \$90  
 especially manufactured  
 for School use

When the Victrola is not in use, the horn can be placed under the instrument safe and secure from danger, and the cabinet can be locked to protect it from dust and promiscuous use by irresponsible people.

**ALBION QUARRY NATURAL SLATE BLACKBOARDS**  
Are Black and stay Black. The only **PERFECT**  
writing surface.

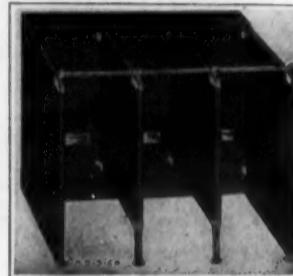
*Sample and Booklet sent on request*



The "KEENAN KIND" Sanitary Slate Fixtures provide perfect Sanitation and Ventilation.



B-11½ S—Urinal



B-26—Closet

*Large Illustrated Catalog for the asking*

**KEENAN STRUCTURAL SLATE COMPANY, Inc.**  
First National Bank Bldg., BANGOR, PA.

*(Concluded from Page 60)*

The school board of Cleveland has prepared a complete building program providing for a building fund of \$12,000,000 to be spent during a period of twelve years. The program provides for new sites amounting to \$905,000, the completion of existing new structures at a cost of \$218,000 and the erection of new structures at a cost of \$11,245,000.

The buildings will in general be of the one-story type of architecture and the cost of the construction will be covered by a bond issue of \$4,000,000.

St. Paul, Minn. The annual budget for the next year is estimated at approximately \$500,000. The budget will include salary increases for teachers amounting to \$300,000.

The school board of Chicago has given bonuses of approximately \$564,059 to the teachers and principals. The bonuses are for the first six months of the year and are intended as a means of combatting the high cost of living. The payment of increased salaries and bonuses and higher school costs generally has created a deficit of \$7,000,000.

**AIDS TO FUEL ECONOMY.**

*(Continued from Page 59)*

*cement.* This is a cheap and efficient remedy. The material may be bought from several dealers.

"*Shaking Grates* should be installed where the bottom of boiler feed doors is not on a level with the top of the grates. These will get rid of ashes and clinkers without stirring up the fuel bed, a process which tends to produce more clinkers.

"*To avoid scale*, provision should be made in the boiler piping for readily introducing soda ash into the boilers.

"*Leaks in valves* should be stopped. Particularly examine the blow-off valves or cocks, and traps of every type. In nearly every case they will be found to leak.

"*Hot Air Furnaces.* Make fire-box gas-tight.

All cracks should be cemented or a new section put in. Otherwise coal-gas will be carried to the rooms. Hot-air pipes should pitch well upward from the furnace and should be of ample area. Recirculating pipes to corridor furnaces are generally too small. They should have the same area as the furnace grate.

"*Firing Tools.* Furnace fires cannot be properly cared for unless the fireman is furnished with suitable firing tools for the work. This is quite an important item in the efficiency of a heating plant.

"*Damper Regulators.* In steam heating plants a damper regulator that will operate gradually according to the pressure in the boilers is a prime necessity. It will unquestionably control the draft and steam pressure better than can be done by hand and should be installed in every plant to save fuel. A regulator for use on a low pressure boiler should be sensitive, having a diaphragm of large diameter.

"*Smoke Pipe Dampers.* In plants where warm air furnaces or cast-iron sectional boilers are installed there should be a "check draft" damper in the smoke pipe, besides the ordinary turn-damper. This check draft-damper controls the rate at which the fire burns much the same as the throttle controls an engine. The turn-damper should fit smoke pipe loosely. With the average heater it should be kept nearly closed.

"*Pipe Insulation.* The supply mains and branches in the boiler room (or preferably in the whole basement) should be well insulated with some form of pipe covering. Nothing about the boiler and piping system will pay greater dividends by saving coal than good pipe and boiler covering.

"The return piping may well be covered also, but it is of less importance than the supply pipe-

**BUYING WITHOUT REGRETS**

The "law of compensation" is relentless.

"Nothing for Nothing" applies in every realm of effort. But the man who makes an unwise purchase buys something that—like a deficit, is less than nothing; for it requires additional outlay in later years.

**NATURAL SLATE BLACKBOARDS**

from our quarries represent the acme of economy and educational efficiency. They require no upkeep, while artificial boards must be resurfaced, repaired and replaced regularly. In comparison, the word "economy" is defined in its truest sense. Slate being non-porous does not absorb anything, so cannot disintegrate. It is finished with a beautiful, velvet smooth surface that does not become gray with age or use; that makes writing a pleasure and reading a relief to the eyes of the students and teachers. That is why our Natural Slate Blackboards combine the utmost efficiency with the utmost of economy.

These are but a few of the advantages. Before you spend a dollar for Blackboards, you should read our book "How to Judge, Specify and Install Blackboards." Send for it today.

**Penna. Structural Slate Co.**  
Worth Building

Easton, Penna.

ing. Cover all valves up to their bonnets and all pipes and fittings one-half inch and larger with either standard thick Magnesia-Asbestos Moulded Covering or 5-ply Asbestos Air Cell Covering. The former is the better insulator.

"Long runs of warm air furnace piping, also long smoke pipes where the draft is sluggish should be covered with single ply corrugated asbestos sheets and a wrapping of heavy building paper wired on. The same applies to a warm air pipe passing through a cold basement or cold room.

"*Air Rotation.* Arrangement should be made wherever possible for *recirculating the air* thru the classrooms, corridors assembly halls and the steam heating stacks or warm air furnaces. The reason for doing this is to avoid taking cold air from out of doors for heating the building when school is not in session.

"*Provision for doing this* should be made in every case where a system of air rotation is not now in use. In nearly every building this can be accomplished at little expense, and will result in saving considerable coal.

"*Kind of Fuel.* It is suggested that a competent fireman be employed to instruct the janitors in the proper methods of securing maximum results in firing the boilers and furnaces.

"*In most school heating plants, soft coal may be burned without any change of equipment* if the janitors are properly instructed in stoking. The Massachusetts Fuel Administration will furnish a bulletin on burning soft coal on request.

"*If a supply of coke is available, it may be used in plants where the janitors have but one building to attend to provided there is a strong chimney draft.*

*(Continued on Page 66)*

**"Sirocco"**  
TRADE MARK

## MAKE YOUR SCHOOL A LEADER

No school can reach the top notch of efficiency unless all the elements necessary to the most efficient management are present.

The school which makes the best record is that school which not only furnishes the best in mental training, but also provides for the most healthful surroundings for its pupils. This is an established fact which is brought out here simply to emphasize the necessity for right ventilation in schools.

**"Sirocco"**  
TRADE MARK

equipment is in use in a great number of leading schools and colleges as well as those lesser known and is the type of ventilating equipment which insures fresh, pure air in the schoolroom no matter what the condition of the outdoor air.

If you are interested in knowing how "Sirocco" equipment can be used to advantage, whether in schools now under construction or in remodeling work, we would like to send you full information. Our booklet, "Three Questions Concerning School Ventilation" contains much interesting information compiled by an authority on school ventilating problems. Do you want a copy of this book?

AMERICAN BLOWER COMPANY  
DETROIT, MICHIGAN

Canadian Sirocco Company, Ltd.  
Windsor, Ontario



Flushing High School, Flushing, N. Y. C. B. J. Snyder, New York, N. Y., Architect.



## A Sanitation Message

**T**O you, who know the real importance of absolute schoolroom sanitation, Northern Fibre Folded Towels offer the solution of a perplexing problem.

This new and distinctly different towel is absolutely sanitary. Made from the heart of northern spruce logs, nothing could be cleaner.

Offering an individual towel for each pair of hands, there is no possibility of the spreading of disease germs, so common with cloth towels. Delivered one at a time from a closed cabinet the towel reaches the hands of the user as clean as the Northland from whence it comes.





## To School Officials

Made from long fibred spruce, Northern Fibre Folded Towels are unusually strong yet they are of cloth-like consistency and ideally absorbent. Neat, dainty, wholesomely clean, they are the logical equipment for school lavatories. The fact that they are remarkably economical is merely incidental to their perfect sanitation.

**Special Offer** A letter will bring you, gratis, a neat package of twenty-five Northern Fibre Folded Towels. Only a trial can properly present all of the advantages of these "better" towels.

**Northern Paper Mills, Green Bay, Wis.**

*Sold only through legitimate trade channels.*

**Northern**  
TRADE MARK  
**FIBRE FOLDED TOWELS**

# DURAND STEEL LOCKERS

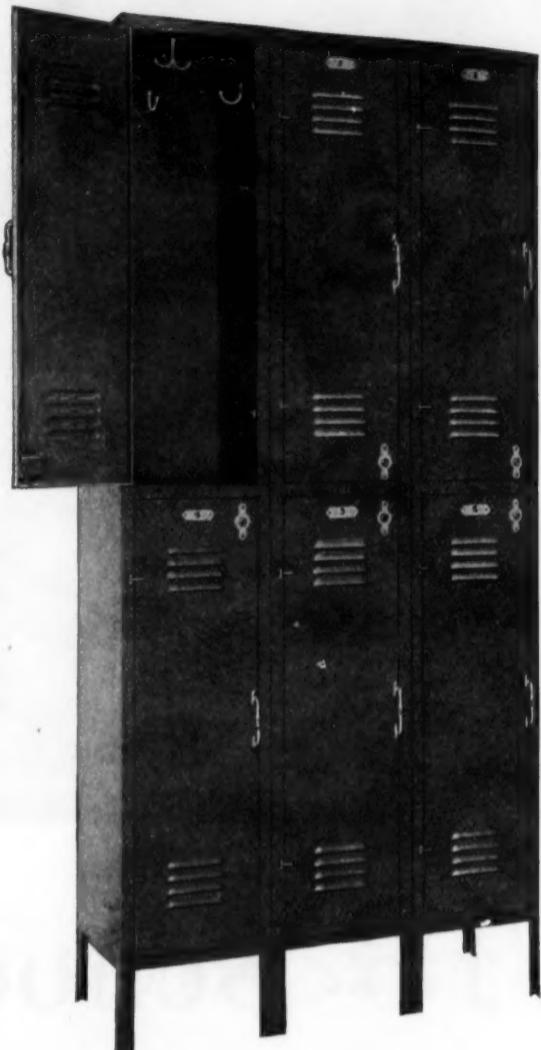
THE name "Durand" is a guarantee of excellence in steel lockers.

Your architect knows Durand Steel Lockers. To him the name means a definite and high standard of quality.

Durand Steel Lockers have a splendid reputation. When you buy lockers with a reputation you cannot go wrong, no matter how little you may know about makes of lockers.

You buy lockers to last the lifetime of the school. Buy lockers that have a well-established name.

Send for catalogue of Steel Lockers, or of steel shelving, bins, etc.



## DURAND STEEL LOCKER COMPANY

1521 Ft. Dearborn Bank Building  
Chicago

921 Vanderbilt Building  
New York City

(Continued from Page 62)

"Hard coal should be reserved for those heating plants where the janitors divide their time between several buildings. Less attention is required to run a hard coal fire.

"A mixture of soft coal and small sizes of hard coal (pea or No. 1 Buckwheat) makes a good fuel where the chimney draft is very strong. Probably not more than thirty per cent of the hard coal can be burned in the mixture. These small sizes of hard coal also make an economical fuel for banking hard coal fires at night in combination with the larger sizes of anthracite. They are applied as a top dressing."

### Supervision of School Buildings.

"*Room Temperatures.* About ten per cent saving in fuel can be effected by keeping the classroom at 65 degrees rather than at 70 degrees. The lower temperature is also the more healthful. If the heating year is started at 65 degrees and this temperature is maintained there will be no discomfort to pupils and teachers. If, however, such a rule is not put in force until December, positive discomfort will result.

"Teachers and pupils alike should be encouraged to wear sufficient clothing to keep them warm at the lower room temperature.

"Install in every classroom and assembly hall an accurate thermometer and have a chart prepared for an hourly record of room temperatures. Assign a pupil the task of keeping the record and good results will follow. (A sample form is suggested on Page 59.)

"Have the manufacturer of your automatic temperature regulating system overhaul the installation and set the thermostats. If the thermostats can be arranged for operating by key only, and if that key is put in charge of a competent person, there will be less tampering

with the thermostats. Set the thermostats controlling fan heaters for about 66 degrees to 68 degrees. During the months of December, January and February they should be set about three degrees or four degrees higher.

"*Humidity.* Wherever possible, provision should be made to moisten the air entering the schoolrooms. In furnace heating systems this may be done by careful attention to keeping the water pan filled with water.

"A specially constructed water pan of copper made to fit the dome of the furnace and connected to the city water supply and controlled by a ball cock, makes a most desirable humidifier. In this scheme provision should be made for a cleaning out pipe as the water gets dirty in time.

"In steam heating installations humidity may be provided but this should be attempted only on the advice of a competent designing engineer."

### Instructions to Janitors.

Mr. Kellogg suggests that school authorities not only give the janitors general instructions but also that inspections of buildings be made to insure the habitual observation of good methods of firing and building management. He urges the following points to be observed by all janitors:

"*Boiler and furnace heating surfaces.* Keep them clean by scraping and brushing at least twice a week where soft coal is burned and once a week in other plants. *Smoke pipes* should be cleaned before the beginning of the heating season, and oftener if soft coal is used. *Water in heaters* should be changed at least once a year.

"*Gauge glass.* The water level should be noted whenever you attend the fire. Occasionally turn the cocks above and below the gauge to make

sure openings to them from boiler are not clogged. Keep water gauge half full of water. More than half uses up the steam space; less than half may damage the heater.

"The *damper regulator* should always be kept in good order. If it does not work properly have it repaired at once. If possible, adjust the damper regulator so that a slight pressure can be carried on the boilers all night. Some experimenting with the banking of the fires may be required to accomplish this but the results are usually well worth while.

"*Control of fire by dampers.* Saving coal in small heaters is chiefly a question of intelligent management of the slides and dampers that control the volume of air passing thru the fire. Visualize the fact that *too much air means more coal burned.*

"Check your fire, or in other words reduce the amount of air passing thru the fuel bed by opening the "check-draft" damper, at the top of the heater or in the smoke pipe. This damper is "open" when it is taking air from the cellar directly into the smoke pipe without drawing it thru the fire. In small heaters, opening the whole ash-pit door may supply more air than is needed. This excess of air is heated to a high temperature and is lost up the chimney. The practice of opening the coaling door to check the fire is bad. With soft coal the slide in the coaling door should ordinarily be open to admit air over the fire in order to burn the bases. Keep the fire burning evenly, and so far as possible, *avoid alternate forcing and checking*, and to reduce coal consumption keep the check-draft damper "open" as much as you can.

"*Grates* should be diligently cared for. A short, quick stroke of the shaker will sift ashes

(Concluded on Page 69)



# COLUMBIA

## School Grafonola and Pushmobile

THE volume of tone, tone-control and tone quality of the Columbia Grafonola are not equalled by any other School Phonograph. The volume of tone is sufficient for any Auditorium, Classroom, Hall or Gymnasium purpose.

The design of the Grafonola harmonizes with the design of the Pushmobile, making it appear as a single unit.

The Pushmobile has seven shelves, so that records may be classified as Band Marches, Folk Dances, Songs, Music Appreciation, Stories, etc.

The Pushmobile has double doors and is fitted with lock and key, thus protecting the records at all times.

Any Columbia dealer will gladly place a Grafonola and Pushmobile in your School-room on trial, without cost or obligation to you, that you may test every claim that has been made for this Columbia School Grafonola & Pushmobile

Literature as listed in the coupon will be mailed on request.

#### EDUCATIONAL DEPARTMENT

#### COLUMBIA GRAPHOPHONE COMPANY

Woolworth Building, New York City

London Factory: 102 Clerkenwell Road, E. C.



The Grafonola and Pushmobile are finished in either Oak or Mahogany as may be desired, in order to harmonize with School Interiors.

The Grafonola may be purchased separately for \$75.00 if the School funds are not sufficient to purchase the entire School outfit. The price of the Pushmobile is \$25.00. The price of the School outfit, complete, \$100.00.

We no longer manufacture the outer-horn type instruments, as they are considered obsolete and are not desired by the general public, because of their unsymmetrical appearance and also because of their greater liability to damage.

Clip this coupon and mail today:

**COLUMBIA GRAPHOPHONE COMPANY**

Educational Department

Woolworth Building, New York City

Please send the following literature:

(Check subject desired)

Grafonola Catalog

Educational Record Catalog

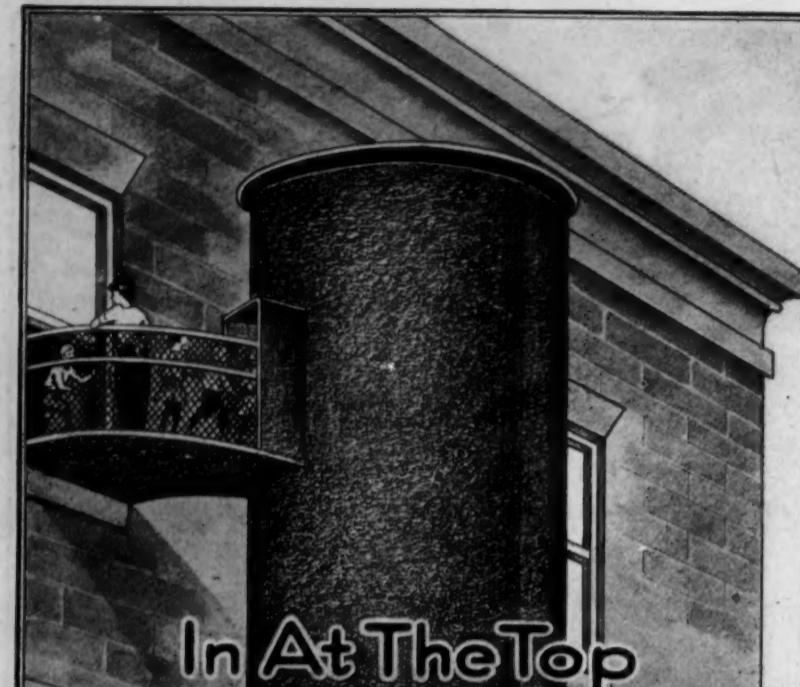
Musical Measurement Manual

Name \_\_\_\_\_

Town \_\_\_\_\_

State \_\_\_\_\_

Grade \_\_\_\_\_ (A. J. Sept.)



**In At The Top**

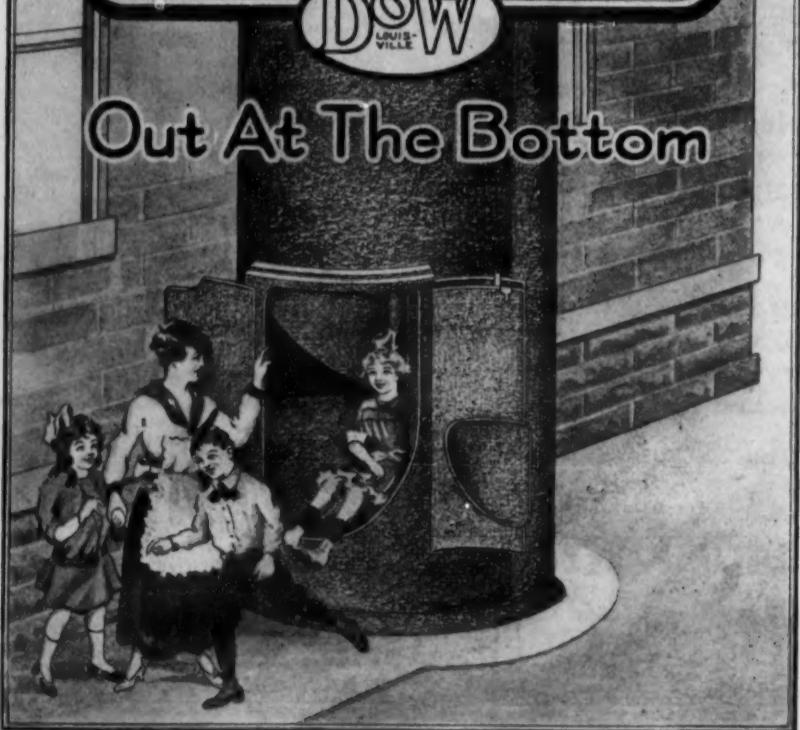
In at the top — out at the bottom. That's the simplicity of the Kirker-Bender Patent Slide Fire Escape. You can't help escaping with a Kirker-Bender; *you simply slide to safety.* Your buildings are worth insuring against fire; what about the lives of the children? The Kirker-Bender is the sanest fire escape ever devised. Any mechanic can erect it.

*Write today for particulars.*

DOW WIRE AND IRON WORKS,  
(Incorporated)  
Louisville, Kentucky

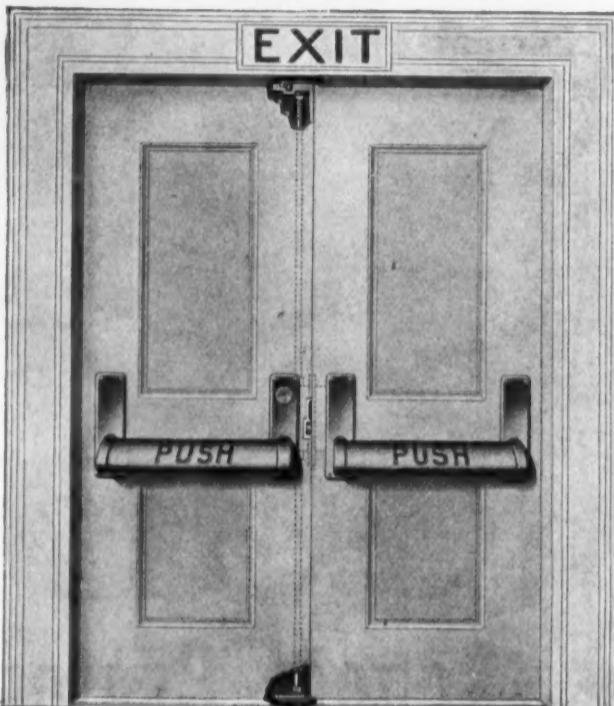


**Out At The Bottom**



## Safety provided in every point

Quick exit is assured and the construction is such that in operating the push bar the hands or arms cannot be caught between the bar and the door.



These New

# SARGENT

Reg. U. S. Pat. Off.

## Fire Exit Door Bolts

are attractive in appearance, strong in construction and quick in action.

They have a wide push bar which projects only  $2\frac{1}{2}$  inches from the surface of the door, permitting the door to swing wide open so as not to obstruct passage through the doorway. Slight pressure on the bar at any point will release the bolts instantly. All edges and corners on the bars and brackets are carefully rounded, eliminating all possibility of wearing apparel becoming accidentally caught.

Sargent Fire Exit Door Bolts,  
Locks and Hardware are sold by  
representative dealers in all cities.

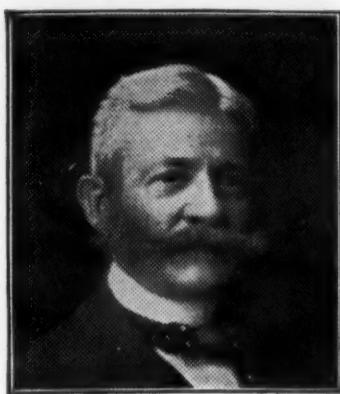
**SARGENT & COMPANY, Manufacturers**

New Haven, Conn.

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Before You Give Out Your  
Text Books—Give Them  
the Protection of

## HOLDEN BOOK COVERS

WHICH WILL

KEEP THEM NEAT AND CLEAN  
TAKE ALL THE HARD KNOCKS  
REINFORCE THE BINDING and

Make Them Last Twice As Long

2500 Progressive Schools in America have found Satisfaction and Economy in Holden Book Covers.

## Holden Patent Book Cover Company

MILES C. HOLDEN, President

SPRINGFIELD, MASS.

(Concluded from Page 66)

thru the grates. Clean the ash-pit daily, to prevent damage to grates and clinkering. Even in severe weather, shake only until a glow appears in the ash-pit. In mild weather leave a bed of ashes on top of the grates. Leave grates in flat position when thru shaking. Avoid poking firebed if hard coal is used. It causes draft holes and clinkers. Never shake a low fire until you put on a little fresh coal and give it time to ignite. Sift the ashes.

*Air supply for 'indirect' or hot air system of heating.* In this system, as in the case of a hot air furnace in a house, the heat is carried to the rooms by the air. Hence the cold air windows (leading to the heating surface) should be kept wide open except in very windy weather—approaching a gale. Inability to heat certain rooms is often the result of not supplying sufficient air to the heating surfaces.

"Within this system, much coal can be saved if the air is "rotated" at night, that is, to use it over and over again instead of admitting cold outdoor air. To do this proceed as follows: From a few minutes before school until an hour after, keep the cold air windows wide open. This extra hour suffices to flush out the rooms, after which the fresh air windows are closed tightly and the recirculating doors opened to allow the air from the rooms to rotate thru the system of flues, heating surfaces, rooms and back to the heating surface again until the following morning. At the same time throw open corridor doors into classrooms, assembly hall, etc. It is also important to close the ventilating outlets while rotating the air.

"Sometimes janitors find that during the air rotating period the rooms on the upper floors take all the warm air to the exclusion of the

rooms on the lower floors which remain cold. If this occurs, the remedy is to wholly or partly close the upper floor corridor doors and leave wide open those on the lower floors. A little experimenting will secure the desired results.

"Rotating the air as described will serve better than any other method in keeping the rooms warm all night, especially if at the same time the damper regulator on the boilers can be adjusted to carry a slight pressure (less than a pound is sufficient) on the system during that time. In general it is more economical to avoid letting the building temperature drop too low during the night.

*Air supply for fan system of ventilation.* Where a fan is used to supply air for ventilation, the air may be rotated outside of school hours as follows: In the morning, run the fan taking air from indoors until the rooms reach the desired temperature. This takes about twenty or thirty minutes. At the same time steam must be on the fan heater and the bypass or mixing dampers must be kept closed.

When school begins, close the recirculating openings and open the fresh air windows. Run the fan as during the school sessions for an hour after the close of school for the day, then close up cold air windows and the classroom vent openings for the night and open the recirculating doors. In many installations with steam on the fan heater, the air will circulate by natural flow and keep the building reasonably warm all night.

*Reduce the heat to unused rooms or cut it off entirely.* In doing this, do not forget to close off the air supply also."

### AMONG BOARDS OF EDUCATION.

Detroit, Mich. The board of education has adopted a standard for all buildings to be erected

in the future. The new plan will save the two and one-half per cent architects' fees and will make for a considerable saving in time. Altho the speeding up process has been considerably augmented, still there is no promise of any of the new structures being finished before the fall of 1920.

St. Paul, Minn. Two experts were recently employed by the supply department of the board to conduct a complete inventory of the supplies and equipment in storage and on hand. In the past the department has depended upon the principals and janitors to prepare the inventory and the new plan is expected to make for a more complete and accurate accounting. It will provide for a redistribution of supplies and reduce the amount of supply expenditures.

Belleview, Ill. The board has reduced the number of special committees to four. These include instruction and discipline, building and grounds, finance and insurance, and printing and supplies.

Springfield, Mass. The school board and the city council have become involved in a controversy over the appointment of teachers from outside sources. The city council has requested the board to present its reasons for adhering to an old policy and the board has refused to comply with the request. It has been the policy of the board in the past to employ Springfield teachers where the qualifications have been equal to those of outside teachers. Where this has not been the case, the latter have been given the preference even tho they were not residents of the city.

The school board of Highland Park, Mich., on July 14th changed its membership with the election of three new members. The new ones are Mr. Caleb S. Pitkins, Mrs. Olive Calvert and Mr. Lewis R. Nicholson.

The school board of Canton, O., will shortly establish a storeroom in one of the school buildings as a means of properly recording, classifying and distributing the large amount of supplies and equipment carried in stock for the schools. The supplies which formerly were stored in the school clerk's office have been found to reach such proportions that this room can no longer be used. It is proposed to employ a man who shall have charge of the making up of orders and the deliveries.



Perhaps many of the pupils who will attend that new school you are planning will have far to go—too far to go home to lunch. That means they'll have to eat cold lunches or buy their lunches near school. And that generally means a lunch on ice cream, candy and other sweets—foods that satisfy but do not build.

Doubtless that new school will have a domestic science department. Why not install a school lunch room, supplying food from the domestic science kitchens? This is the practice in many modern schools. The small fees paid by pupils for lunches often defray all domestic science department expenses. During vacation months is an ideal time to install the same plan in old schools.

Our booklet No. 159 embodies some very practical lunch room ideas adopted by Industrial and Educational Institutions in the United States and Canada.

Our engineering department can be of material assistance to you if you can give us an idea of the number of pupils you plan to serve, and if possible forwarding us a blue print of the floor plan, or sketch of space you will devote to this department.

## Good Food Means Alert Pupils

Much has been written about the effect of an underfed body upon a child's mind. Scientists have often proven by actual tests that the properly fed pupil is almost invariably the most alert and ready to learn.

## Chicago Hardware Foundry Company

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**SCHOOL AND INDUSTRIAL LUNCH ROOM EQUIPMENT**

### SCHOOL LAW.

(Continued from Page 58)

clauses of the state or federal constitutions (Illinois constitution, art. 2, § 2; constitution U. S. Amendments 5 and 14).—Fisher v. Fay, 122 N. E. 811, Ill.

The validating act approved June 14, 1917, (Illinois laws of 1917, p. 744), purporting to validate all elections for the organization of high school districts, validated the organization of a high school district, altho from the beginning the organization of the district was fought constantly and persistently; such a case being properly decided by the lower court as the law existed when judgment was rendered.—Fisher v. Fay, 122, N. E. 811, Ill.

If the Arkansas constitution, art. 14, § 1, pledging state to maintain efficient system of free schools, applies at all to arrangement and management of school districts, it does not hamper the legislature in its control over that subject.—Krause v. Thompson, 211 S. W. 925, Ark.

A rural special school district can only be established out of territory not already incorporated in special school districts.—rural Special School Dist. No. 85 v. Tatum, 211 S. W. 923, Ark.

A county board of education, after approving a petition for the establishment of a graded school as provided in the Kentucky statutes, § 4464, could withdraw such approval because a member was honestly mistaken as to the boundary of the proposed district when he voted to approve the petition.—Conrad v. Poole, 211 S. W. 874, Ky.

### School District Government.

As an incident to the control which the board of public education for the city of Savannah, county of Chatham, has over its schools by law, the board may appoint a superintendent of schools and pay him compensation.—Richter v. Board of Public Education for City of Savannah and County of Chatham, 99 S. E. 28, Ga.

The superintendent of schools appointed by the board of public education for the city of Savannah and county of Chatham is an officer of the board, but not such a "county officer" as must be elected by the people and whose eligibility is fixed by the Georgia civil code of 1910, § 258 (7).—Richter v. Board of Public Education for

City of Savannah and County of Chatham, 99 S. E. 28, Ga.

Under the Georgia acts of 1865-66, p. 78, and the acts of 1866, p. 175, charging the board of education for the city of Savannah and county of Chatham with the direction, management and superintendence of the public schools, the duties of superintendence of the schools rests on the board in a general and not in a narrow or technical sense.—Richter v. Board of Public Education for the City of Savannah and County of Chatham, 99 S. E. 28, Ga.

Under the Arizona civil code of 1913, par. 2733, and paragraph 5552, subd. 2, any two of the three members of a board of school trustees can transact business.—Hermance v. Public School Dist. No. 2 of Maricopa County, 180, p. 142, Ariz.

The Alabama acts of 1915, p. 534, are held, in view of section 5, to authorize the board of school commissioners of Mobile county as constituted under the Alabama acts of 1875-76, p. 363, to appoint attendance officer for city of Mobile.—Graham v. City of Mobile, 81 So. 355, Ala. App.

The Alabama acts of 1915, p. 534, are held, in view of section 5, to authorize the board of school commissioners of Mobile county, as constituted under the Alabama acts of 1875-76, p. 363, to appoint attendance officer for city of Mobile to be compensated out of city treasury, notwithstanding the Alabama constitution of 1901, § 270, such city having no city board of education and the acts of 1915, p. 534, not being limited to the county boards created under the Alabama code of 1907, § 1713, or city boards created under section 1349.—Graham v. City of Mobile, 81 So. 355, Ala.

The rules of the board of education of the city and county of San Francisco, § 12, providing that any rules might be amended or repealed by the affirmative vote of three members at any meeting, provided notice in writing of such intended amendment or repeal had been given at a previous meeting, was merely a rule of procedure for the guidance or protection of the members of the board, which they could suspend or ignore on occasion, and in respect to their action in so doing only the members themselves had a right to complain.—Grosjean v. Board of Education

of City and County of San Francisco, 181, p. 113, Cal. App.

The rules of the board of education of the city and county of San Francisco, § 12, providing that any rules might be amended or repealed by the affirmative vote of three members at any meeting, provided notice in writing had been given at a previous meeting, was effectually suspended by the board thru its unanimous action in passing amendment to another rule without the formality of the notice in writing of its proposed enactment.—Grosjean v. Board of Education of the City and County of San Francisco, 181, p. 113, Cal. App.

### School District Property.

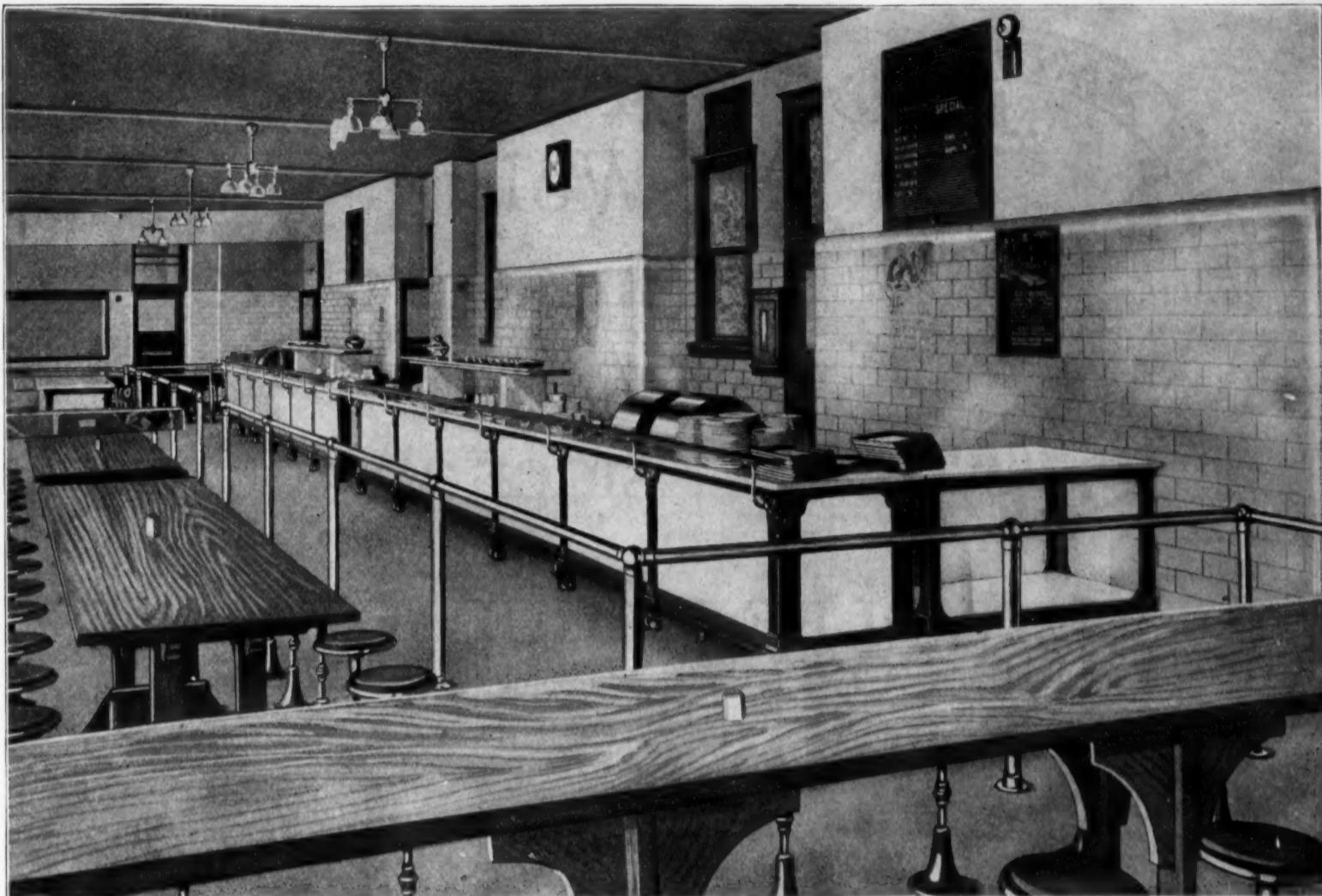
Under Hurd's revised statutes of Illinois for 1913, c. 122, § 91, as amended by the Illinois laws of 1913, p. 583, giving the board of education for a high school the power of school directors to build schoolhouses, and the statutes of 1915, c. 122, § 119, as amended by the laws of 1915, p. 639, prohibiting the board of directors from purchasing a schoolhouse site, without an election called under the Illinois school law, § 198, a high school board was not authorized to purchase a schoolhouse site by a vote, where the proposition submitted combined the purchase of a site either with the erection of a new building or the issuance of bonds.—O'Connor v. High School Board of Education of Evanston High School Dist., 123 N. E. 283, Ill.

Where a contractor for the construction of high school in alleged violation of his contract with his surety assigned a future payment under the contract to a bank to pay a materialman, the surety, which, with knowledge of such assignment, took over the contract on the contractor's failure and completed the work, was thereby estopped from claiming that such assignment released it as surety; the surety's acts constituting a ratification of the assignment.—United States Fidelity & Guaranty Co. v. Elliott, 123 N. E. 178, Ind. App.

A board of education of a city school district, maintaining twenty schools, and vested with all the powers of trustees, school directors, and boards of education under Hurd's revised statutes of 1917, c. 122, § 354a, is empowered, under chap-

(Continued on Page 72)

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(Continued from Page 70)

ter 122, ¶ 127, cl. 5, to purchase land, for playgrounds and athletic fields, tho it is not contiguous to an existing schoolhouse site.—Reiger v. Board of Education of Springfield School Dist. No. 186, 122 N. E. 838, Ill.

Under the Illinois school law, ¶ 39, a board of education may receive as a gift a conveyance of real estate to it, for use as playgrounds.—Reiger v. Board of Education of Springfield School Dist. No. 186, 122 N. E. 838, Ill.

A board of education has authority to purchase grounds for a playground under the Illinois laws of 1915, p. 640, giving boards of education of a school district having fewer than 500,000 inhabitants power to acquire property and to have compensation therefor determined in accordance with right of eminent domain.—Reiger v. Board of Education of Springfield School Dist. No. 186, 122 N. E. 838, Ill.

The board of education of the city of New York has a right, in its discretion, to transfer from one school to another a janitor-engineer appointed in charge of a school, where he receives only a actual salary, instead of compensation on the measurement system, himself paying his helpers.—Crosby v. Board of Education of the City of New York, 175 N. Y. S. 373, N. Y. Sup.

Where janitor-engineer in the city of New York was placed in charge of large high school and salary fixed at \$12,000 under measurement system, whereby he paid helpers, his retransfer back to his old school, where gross compensation was only about \$5,000, and net return less than he received in high school, was within the power of the board of education.—Crosby v. Board of Education of City of New York, 175 N. Y. S. 373.

The board of education of the city of New York had power to transfer a janitor-engineer to another school, and when he refused to accept the transfer and, defying its action, resigned from the charge of the school to which he was transferred, the board had the right to accept his resignation, and terminate his connection with the school system.—Crosby v. Board of Education of City of New York, 175 N. Y. S. 373.

One who has furnished fixtures to a school district, which has exceeded its constitutional

debt limit, in rescinding the contract, will not in equity be required to refund any money which was paid, where there are many articles some of which can be removed from the schoolhouse, without material injury to the building, and others not.—Moe v. Millard County School Dist., 179, p. 980, Utah.

A seller of schoolhouse fixtures to a school district which has exceeded its constitutional debt limit will, under the direction of a court of equity, be permitted to remove such of the fixtures as can be removed materially without injuring the building to an amount necessary to compensate him for the unpaid purchase price with interest.—Moe v. Millard County School Dist., 179, p. 980, Utah.

The rule that an irregular contract cannot be ratified, except with full knowledge of the irregularities by party ratifying, does not apply to officers of school district, since such officers are bound to know the acts relating to the irregularities.—Herman v. Public School Dist. No. 2 of Maricopa County v. 180 p. 442, Ariz.

**School District Taxation.**

The Florida general statutes of 1906, ¶ 324, contemplates that payment of purchase price of realty to be used for erection of school buildings, and payment of debts contracted for such purpose, shall be made from the school funds and not from the general county funds, in view of sections 341, 343, 347.—Langford v. Odom, 81 So. 469, Fla.

A school district, under the Missouri revised statutes of 1909, ¶ 10869, having power to erect more than one school building, and under section 10777 to borrow money therefor, repair, build additions, etc., submission to the voters at the same election of two propositions to borrow money and issue bonds for building a new schoolhouse and for addition and repairs to the old schoolhouse, was reasonable and legally permissible; the court having no authority to revise, in this respect, the determination of the board, conferred by statute. (Per Woodson, J.)—Robinson v. Wise, 210 S. W. 889, Mo.

The separate submission at the same election of propositions to incur indebtedness of the school district for building a new schoolhouse

and adding to and repairing the old one did not combine the two propositions, so as to have one expression of the vote answer both propositions. (Per Woodson, J.)—Robinson v. Wise, 210 S. W. 889, Mo.

A bond issue by a school district, after negotiation, cannot be attacked on the ground of doubleness in the proposition submitted to the voters. (Per Blair, P. J., and Graves, J.)—Robinson v. Wise, 210 S. W. 889, Mo.

The Illinois laws of 1909, pp. 368, 369, ¶¶ 93, 94, 96, as amended by the Illinois laws of 1917, pp. 741-744, relating to taxation of property in non-high school districts for tuition of resident pupils attending high schools, are held valid.—People v. Cleveland, C. C. & St. L. Ry. Co., 122 N. E. 792, Ill.

The Illinois laws of 1909, pp. 368, 369, ¶¶ 93-96, as amended by the laws of 1917, pp. 741-744, providing for taxation for payment of tuition of eighth grade graduates resident in non-high school districts, attending recognized high schools, are not subject to the objection that they permit two taxing boards to exercise jurisdiction over the same territory for the same purpose.—People v. Cleveland, C. C. & St. L. Ry. Co., 122 N. E. 792, Ill.

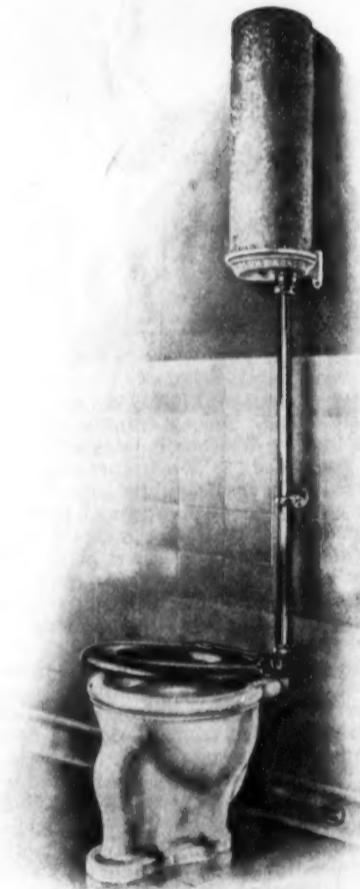
There is no constitutional limitation placed upon the legislature with reference to the formation of school districts or as to agencies the state shall adopt for providing for free schools, and it is competent that the legislature provide for the establishment of township high schools as well as district schools, and to confer upon each of said board powers of taxation, including that of the Illinois laws of 1917, p. 743, ¶ 96, providing that upon the county superintendent's approval a high school pupil may attend a recognized high school more convenient in some district other than his own, and the board of his own district shall pay his tuition therein.—People v. Cleveland, C. C. & St. L. Ry. Co., 122 N. E. 792, Ill.

Neither the Illinois constitution, art. 9, ¶¶ 9 and 10, nor any other constitutional provisions, place any limit upon the rights and powers of the legislature to fix such rates of taxation for

(Continued on Page 74)



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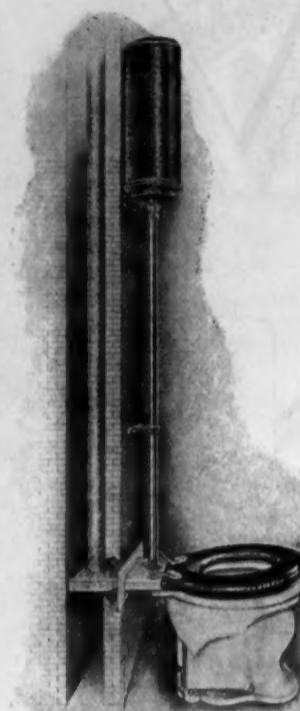
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LITTLE ROCK, ARK.



(Continued from Page 72)  
school purposes as it may see fit.—*Fisher v. Fay*, 122 N. E. 811, Ill.

The Illinois act approved June 1, 1917 (laws of 1917, p. 744), purporting to validate all elections for the organization of high school districts, etc., had the effect to make valid every act of a board of education which, under the general school law, boards of education were empowered to do and perform, including high school taxes previously levied.—*Fisher v. Fay*, 122 N. E. 811, Ill.

Under the Kansas laws of 1915, c. 314, § 3, the county commissioners may make a levy on all taxable property in the county to raise revenue for the tuition of pupils in schools located outside of cities or districts in which pupils reside, but must exclude property of any district or city maintaining either a four-year accredited high school, or a rural high school.—*Missouri Pac. R. Co. v. Board of Com'rs of Greenwood County*, 180 p. 785, Kans.

### Teachers.

The rules of the board of education of the city and county of San Francisco, § 47, requiring principals when officially notified of any changes or amendments to the rules to cause them to be inserted in the copy belonging to each teacher, was complied with sufficiently where the principal of a teacher directed her attention to a new rule regarding absence of teachers shortly after its passage, and where the teacher then read the rule.—*Grosjean v. Board of Education of the City and County of San Francisco*, 181 p. 113, Cal. App.

Where a school-teacher of the city and county of San Francisco, when meeting charges before the board of education, did not object to any passion or prejudice of the board, but did object on appeal from the decision of the board to the superintendent of schools, the objection was too late, even if it had been valid instead of general.—*Grosjean v. Board of Education of City and County of San Francisco*, 181 p. 113, Cal. App.

In the absence of a statutory requirement that employment of teachers shall be done only at meetings of board of trustees, or that the board shall transact official business only at a general or special meeting regularly convened, it is not necessary that formal meeting be held for the

purpose of employing teacher.—*Hermance v. Public School Dist. No. 2 of Maricopa County*, 180 p. 442, Ariz.

It is the duty of officers of school districts to provide teachers, and to make contracts with them, and to know under what conditions a teacher, whom they know to be teaching, claims to act.—*Hermance v. Public School Dist. No. 2 of Maricopa County*, 180 p. 442, Ariz.

Where a teacher's contract, required to be signed by two trustees, was signed by only one of them, but trustee not signing knew that the teacher was teaching, without objecting thereto, and concurred in paying teacher's salary, the school district ratified the contract.—*Hermance v. Public School Dist. No. 2 of Maricopa County*, 180 p. 442, Ariz.

A school-teacher, suspended on charges by the board of education on February 2, 1917, admitted to a training school for officers in the United States service on August 23, entering such school September 11, 1917, charges being dismissed October 24, 1917, was entitled to compensation for the entire period of suspension, less the amount of his pay from the federal authorities; it appearing that he obtained leave of absence immediately after the charges were dismissed, the only duty resting on the teacher being to hold himself in readiness to report again for duty on such reasonable notice as the manifest propriety and morality of keeping himself occupied in some lucrative way in the interval would reasonably permit.—*Chasins v. Board of Education*, 175 N. Y. S. 500, N. Y. Sup.

### Pupils.

The right of a child of school age to attend the public schools of the state cannot be insisted upon, when its presence therein is harmful to the best interests of the school.—*State v. Board of Education of City of Antigo*, 172 N. W. 153, Wis.

Where a school board, acting under the Wisconsin laws of 1889, vol. 2, c. 197, § 101, subd. 5, took a child with defective vocal organs and speech out of the public school and removed him to a day school maintained under the statutes of 1917, § 41.01, for the instruction of deaf persons or persons with defective speech, its act will not be interfered with by the courts, unless it acted

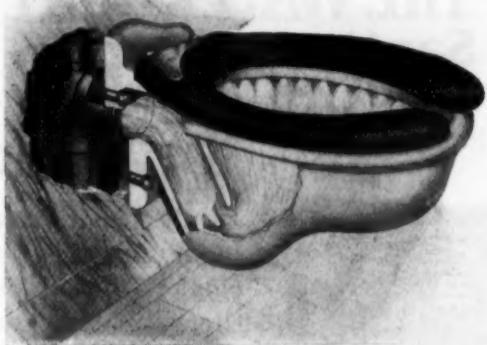
unreasonably.—*State v. Board of Education of City of Antigo*, 172 N. W. 153, Wis.

It cannot be said that a school board, acting under the Wisconsin laws of 1889, vol. 2, c. 197, § 101, subd. 5, acted unreasonably in removing a child from the public schools and placing him in a day school maintained under the Wisconsin statutes of 1917, § 41.01, for the instruction of deaf persons or persons with defective speech, the child not having the normal use and control of his voice, hands, feet, or body, being slow and hesitating in speech, and having a peculiar high, rasping and disturbing tone of voice, accompanied with uncontrollable facial contortions, making it difficult for him to make himself understood, and an uncontrollable flow of saliva which drooled from his mouth upon his clothing and books, causing him to present an unclean appearance.—*State v. Board of Education of City of Antigo*, 172 N. W. 153, Wis.

A petition under the Montana laws of 1913, c. 76, § 405, for division of school district is not a "pleading," and its sufficiency is not to be tested by subjecting it to analysis by a trained legal mind seeking defects.—*State v. Peterson*, Mont.

Under the Illinois constitution, art. 8, § 1, requiring the legislature to provide an efficient system of free schools, the legislature has the discretionary power to form school districts subject only to the limitation of the constitution as to the purpose of such districts and the further limitation that the place thereof shall be uniform.—*People v. Chicago & N. W. Ry. Co.*, 121 N. E. 731; *Same v. Cleveland, C. C. & St. L. Ry. Co.*, Id. 737; *Same v. Wabash Ry. Co.*, Ill.

Supt. F. E. Spaulding of Cleveland, writing to the Cleveland Plaindealer from France, points out that better trained teachers and consequently better teaching must go hand in hand with salary increases. Dr. Spaulding in explaining the purpose and operation of the Cleveland School of Education for the training of teachers, points to the need for high educational requirements for instructors, the opportunities to be realized in attending its summer sessions, and the character of the service which the school and its faculty may render direct to the teachers and principals, and indirectly to the pupils.



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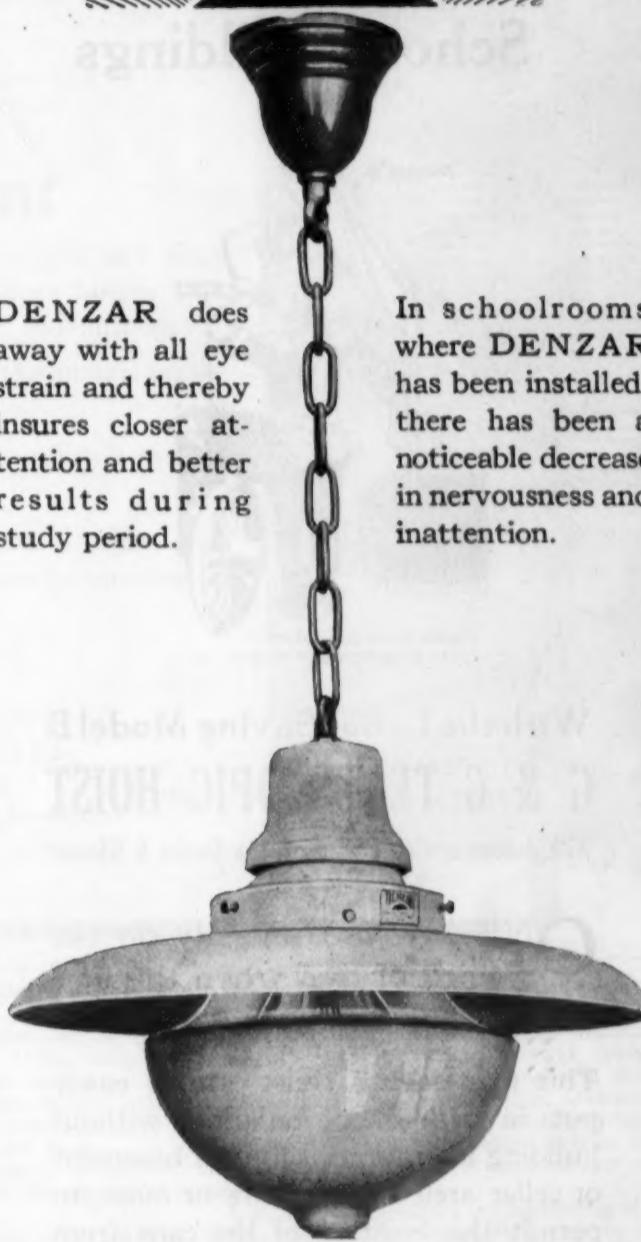
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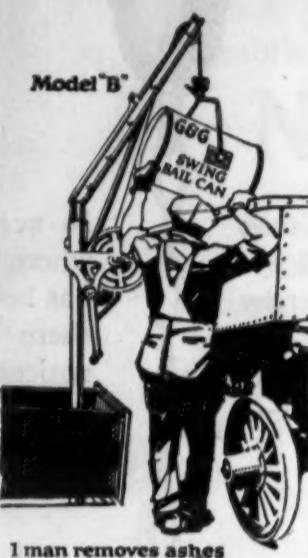
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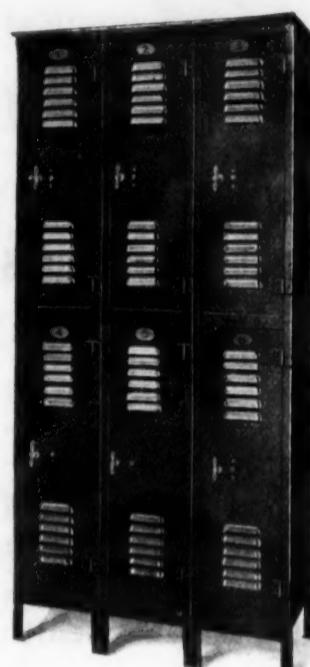
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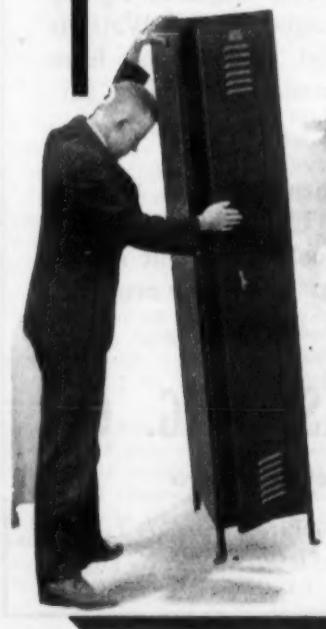
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#### NEWS OF SCHOOL OFFICIALS.

Mr. J. Earl Henry, architect and consulting engineer of the Louisville board of education, has recently formed a partnership with Mr. Hugh L. Nevin for the practice of architecture. The new firm of Nevin & Henry will specialize in schoolhouse work.

Mr. E. S. Acres, for the past six years secretary of the board and business agent for the schools of Long Beach, Cal., has resigned to engage in business.

Mr. Lynn Helm has been reelected president of the board of education at Los Angeles, Cal.

Mr. S. S. Kemble of Rock Island, Ill., has resigned after seventeen years of service as clerk of the board.

Mr. T. C. Smith has resigned as clerk of the board of education at Hutchinson, Kans. Mr. Smith during his eight and one-half years of service, fulfilled the combined duties of clerk and superintendent of buildings and grounds. Mr. J. E. Guyer succeeds Mr. Smith.

Mr. W. H. Holmes, for the past twelve years clerk of the board at Springfield, O., died at his home on July 2nd following an attack of heart failure. Mr. Holmes was 66 years of age.

Mr. A. J. Archer, secretary of the board at Alma, Mich., has resigned after three years' service.

Mr. H. W. Porter has been elected secretary of the board at Glidden, Ia.

Mr. L. M. Enger has been elected secretary of the board to succeed R. F. B. Portman.

Mrs. Olive A. Calvert has been elected a member of the board at Highland Park, Mich. She is the first woman to be elected to a place on the Highland Park board.

Mr. George Luton, of the board at Newaygo, Mich., has resigned after more than a quarter century of service. Mr. Luton became a member of the board in July 1879 when he was appointed president. At the time of his retirement, Mr. Luton held the office of treasurer of the board.

Capt. L. A. Tugge, who recently returned from military service in France, has been appointed business agent of the public schools of Danville, Ill. Capt. Tugge will in addition have charge of the manual training department which position was held previous to his enlistment.

Mr. C. S. Bankhead has been elected secretary of the school board at Joplin, Mo.

Dr. Frederick A. Krapohl, president of the board of education at Bay City, Mich., died at Ann Arbor July 25th, following an operation.

Lieut. B. W. Wall, who has been in the military service, has returned to his duties as secretary of the school board at Newport, R. I.

Mr. Fred Bloom has been employed as superintendent of buildings and grounds for the board of education of Racine, Wis.

Mr. Wallace C. Kemp has been reelected as president of the board of education at Wichita, Kans.

Mr. A. F. Bledsoe has been elected secretary of the board at Rockwell City, Ia., to succeed C. O. Dixon, resigned.

Capt. H. J. Collier, Jr., has been elected as business manager of the school board at Fort Wayne, Ind. Capt. Collier has just returned from service as captain of the quartermaster's department, construction division, at Edgewood Arsenal, Edgewood, Md. In his new work, Capt. Collier will have entire charge of school building and repairs, the purchase of supplies and the administration of the business department.

In a reorganization of the board of education at Washington, Ind., Dr. R. M. Smiley was elected president; M. S. Hastings, secretary, and A. C. Wise, treasurer.

Mr. F. J. Piepenbrink has been made purchasing agent for the school board at Terre Haute.

Mr. A. L. Dix, director of manual training at Melrose, Mass., has been placed in charge as supervisor of school repairs. During the past year Mr. Dix, with the aid of the manual-training class made repairs to the schools resulting in a saving of \$13,500.

#### SCHOOL BOARD NEWS

A survey of the New York school system will be begun shortly under the direction of a committee of the board of education headed by President Prall. The sum of \$25,000 has been appropriated for the work but at the present writing no director has been appointed.

The survey unlike that led by Dr. Paul Hanus between 1911 and 1914 will not cover the entire school system, but will limit itself to the ma-

terial aspect only so far as that is possible. The several bureaus and departments under the board will be studied to determine their functions, and their efficiency, to learn what businesslike methods can be adopted to increase their effectiveness and to produce better cooperation between all sections of the school system. The financial aspects of the school system and business aspects of the educational bureaus are to be especially studied.

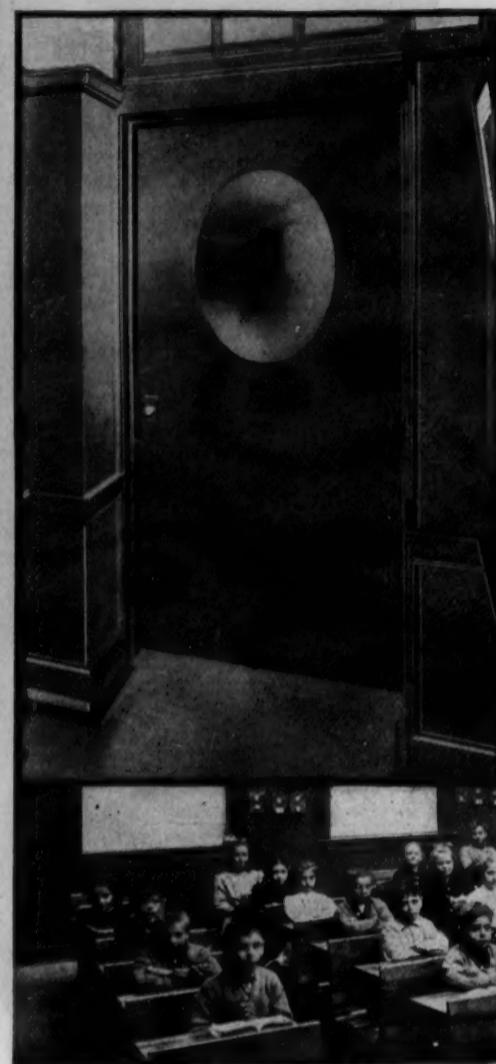
A survey of the entire school system of Detroit, Mich., has been ordered with a view to extensive alterations in the educational plan. The survey is intended to find the need, if any, for playgrounds and play facilities and is expected to provide the figures showing the actual shortage of school equipment.

Stoneham, Mass. The entrance age of pupils in the schools has been lowered to five years. The former age limit was six years.

Adrian, Mich. The board has accepted a drinking fountain presented to the schools as a memorial by the class of 1919. The fountain is to be placed in the school-yard near the school building.

The School Board Section of the Bureau of Education, which was established in December, 1918, and was maintained until the end of the year, has been discontinued for lack of an appropriation. The work was undertaken primarily to meet an emergency caused by the war. The bureau feels that there are thousands of requests for teachers which might be attended to at this time but the lack of the necessary funds makes it necessary to discontinue the service for the present at least. The reopening of the division at any time in the future will depend on what congress will do about the appropriation.

Janitors in the schools of Woonsocket, R. I., recently refused to obey an order of the chief janitor requiring them to do the varnishing in their respective buildings. The janitors based their refusal on the fact that they were not fitted for such work which should be done by skilled painters. They also pointed out that they often worked twelve to sixteen hours and that increases in pay had not been given as in the case of other city employees.



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### BUSY SUPERINTENDENTS.

The 1919 census of school children in Michigan shows a total of 919,665 children or an increase of 28,569 over a year ago. A school fund of approximately \$7,000,000 is to be distributed among the schools of the state this year.

Mt. Sterling, Ky. The school year has been reduced from forty to 36 weeks to meet the increased cost of maintenance.

Colorado Springs, Colo. A teachers' council has been created as an advisory body of the board of education to make possible a closer understanding and cooperation between the directors and the teachers in the schools. The council will meet with the board at the first meeting following the opening of schools in September.

Waltham, Mass. Physical training has been introduced under the direction of a supervisor. Physical examinations will be made of pupils and attention will be given to remedies for defects.

The statistics of the school board of Grand Rapids, Mich., show that there has been an increase of 4,125 pupils in the schools during the past ten years. The total enrollment for this year was 20,108, an increase of 536 over last year.

The high schools of Cincinnati show a decided reduction in pupils who register for industrial courses. A minimum loss of six per cent is apparent so far in the general registrations of eighth grade graduates so that it has become necessary to equip only one unit for the industrial arts courses in the East Side high school.

The special committee appointed by Mayor Chase to study the school situation and the general needs of the schools of Huntsville, Ala., has reported that it is impracticable to combine the duties of the city superintendent with those of the county superintendent. It recommends that the resident matriculation fees be abolished and that a three-mill tax be levied to provide adequate funds for the conduct of the school system.

The committee in presenting its findings made the following pertinent points:

1. That under the law the duties of the superintendent cannot be transferred to the county superintendent. The city superintendent is an absolute necessity and he should devote his entire time to the management of the schools.

2. The available revenues are wholly inadequate for the proper conduct of the school system for the ensuing year. It is recommended that the resident matriculation fees be abolished and that the three-mill tax proposed in the present call for an election be adopted.

3. Complaints and charges in connection with the operation of the schools brought to the attention of the committee were as follows:

(a) The improper method of disbursing the school funds.

(b) The improper conduct of the superintendent.

(c) The failure to allow a sufficient period of time between the opening of the school building and the assembling of the classes.

The committee in its report, stated that the board should study the school laws carefully and conform strictly to them in the disbursement of funds; that no charges of misconduct were substantiated in such manner as to enable the committee to pass upon the same, and the patrons were asked to place their complaints to the board for consideration; that the length of time between the opening of the school building and the assembling of classes be increased to thirty minutes.

Under a new plan adopted for the schools of Council Bluffs, Ia., teachers and principals will not serve in the same building two years in succession. The new plan provides for the rotation of teachers and for the grouping of several buildings under the direction of an expert supervisor. The application of the plan will be limited to the grade schools.

A low average of 11.4 per cent in retardation is attributed to the schools of Bridgeport, Conn., by Supt. S. J. Slawson in a recent statement. The average thru the state runs between 25 and 35 per cent, while the highest percentage in Bridgeport reached 21 per cent. Eleven schools had less than ten per cent of retardation. In the opinion of Supt. Slawson, the credit for Bridgeport's good showing is due to the fine work of the teachers.

Prof. George D. Strayer and Prof. N. L. Engelhardt of Columbia University have been engaged to conduct an extensive survey of the physical condition of the Delaware schools, outside of

Wilmington. The survey has been made as a preliminary to the distribution of the \$2,000,000 which has just been placed at the disposal of the schools by Mr. Pierre S. DuPont.

The money is to be turned into a trust fund and is usable to not more than one-half of the cost of any new school building, or of the cost of reconstruction of an old building, and it may not be used for repairs or for remodeling purposes.

The gift of Mr. DuPont makes it possible for every school and district to have adequate and modern school facilities for both the white and colored children. In districts where the need appears to be greatest, the service citizens may grant as high as fifty per cent of the cost of a building project, provided the plans are approved by the State Board of Education and are up-to-date in all features.

The needs of the colored schools have been considered thru the setting aside of \$400,000 for the improvement of colored school facilities. The foresight of Mr. DuPont provides school buildings which are to be the equal of any for the white schools.

As a means of interesting eighth grade graduates of the community in high school education, superintendent M. N. Todd issues annually in August a bulletin describing the advantages of high school education, the money value, the facilities of the Murphysboro High School, etc. The pamphlet reaches parents as well as children and has been found an effective instrument for arousing interest and increasing attendance.

Mr. Homer W. Anderson who was recently elected assistant superintendent has resigned to assume a position in the Department of research, Detroit city schools.

Dr. Henry C. Morrison has become Professor of School Administration and Superintendent of the Laboratory Schools of the University of Chicago. Professor Morrison will be associated with Professors Bobbitt and Rugg.

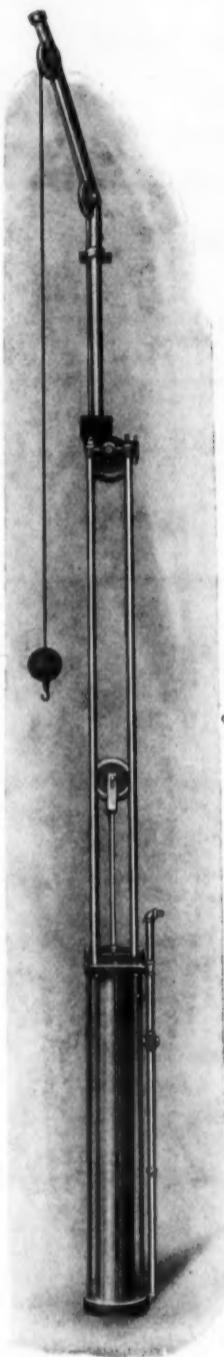
Professor Morrison is a native of New England and has served in a wide variety of executive offices in New Hampshire and Connecticut. He has been instrumental in making changes in a number of important elements of school organization in the two states where he has worked.

# PAYNE HYDRAULIC ASH HOISTS

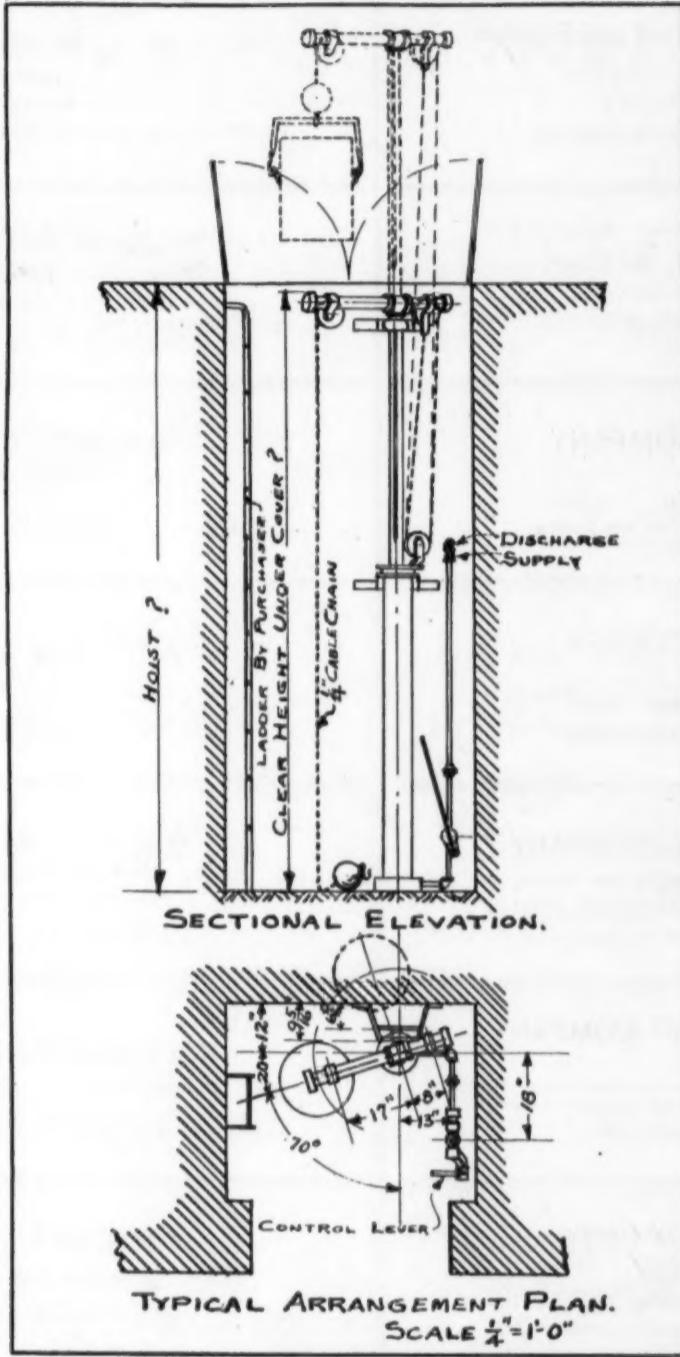
ECONOMY



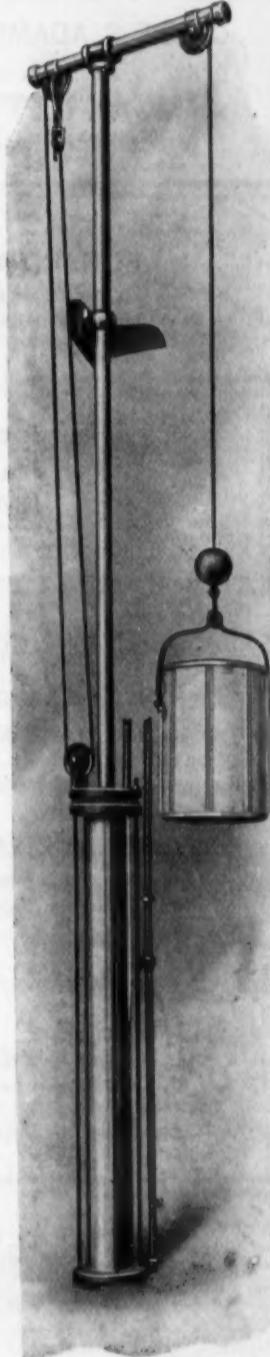
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### A LETTER TO THE SCHOOL BOARDS OF OHIO.

State Supt. F. B. Pearson of Ohio, in an open letter to the school boards of the Buckeye State, points out that there is little attraction for young people in the teaching profession and urges that salaries be made sufficiently high that young women and men may be induced to prepare for teaching. He writes as follows:

*To the School Boards of Ohio:*

"It is becoming more and more difficult to induce young people to make the legal and needful preparation for the work of teaching and the reason is not far to seek.

The inducements are not sufficiently attractive to win their interest. Their business acumen reveals to them many other lines of work that are more lucrative and they choose them in preference to teaching. Many people think wide of the mark in estimating the salaries of teachers. The stenographer receives \$75 a month. Therefore, people argue that they have the same salary. The stenographer receives \$900 a year and the teacher receives \$600 a year. The stenographer has \$75 each month of the year for her maintenance; the teacher has \$50 each month of the year for her maintenance. Therefore, the stenographer has fifty per cent more than the teacher. The stenographer gets none too much but the teacher receives far too little. No teacher can do and be what a teacher ought to do and be on \$50 a month and every thinking person will realize the truth of this statement.

There is just one way in which we can induce young people to prepare for teaching and that is to make the salary sufficiently attractive. If this is not done they will not prepare for the work and no one can blame them. It is gratifying that some boards of education have ceased to shy far away from four figures in fixing the salaries of their teachers and it is strongly hoped that this practice may become general.

Surely the teachers of our children are worth as much to civilization as plumbers, blacksmiths, hod-carriers, barbers and hair-dressers, and the sooner we come to realize this obvious fact the better it will be for all of us. If a board member insists upon cheap teachers, he evidently must expect a cheap school, and, if we have cheap

schools inevitably we shall have cheap civilization.

We cannot compare the salary of the teacher today with salaries ten years ago. We must estimate salaries according to the scale of living we have today. It is high time we were becoming awake on this matter of salaries if we are to preserve the high standard of our schools.

The sort of teacher the board member would wish for his own child is the sort of teacher he ought to wish for his neighbor's child.

*F. B. Pearson.*

### SCHOOL BOARDS ABOLISHED.

The recent session of the Porto Rico legislature, which closed in July, passed a law reorganizing the municipal governments of the island. The law eliminates mayors, councils and school boards and makes provision for a municipal assembly which chooses the heads of the executive departments.

In the case of the school board it is provided that there shall be a municipal commissioner of education who is to exercise all the powers and functions formerly conferred upon the school boards. The commissioner is the business administrator of the schools and each municipality is to have a professional head in the person of the Supervisor of Schools. The Supervisor is to be appointed by the Insular Commissioner of Education and the business manager is chosen by the municipal assembly elected by the people.

It is provided that in municipalities of the first and second class, there shall be five commissioners or executive heads in the municipal government, and in the third class, three.

The purpose of the new law is to effect greater economy and increased efficiency in the administration of municipal affairs.

### ADMINISTRATION NOTES.

One of the biggest steps yet to be taken in the schools of the country is that of standardizing the methods of departments of research, in the opinion of Murray Dalman, director of that branch of the work of the Indianapolis public schools. Mr. Dalman's work often requires, for its successful completion, similar figures from the research department of another city. Some-

times these results, used for comparative purposes, are forthcoming, at others not.

The same is true of requests received by Mr. Dalman from others. If the figures are available in the form requested, they are dispatched forthwith. On the other hand, it frequently happens that to comply with the request, a mass of detail work would be necessary. The chief fault in the exchange of information, Mr. Dalman points out, is the lack of uniform methods. All research departments are working to the same end, but their individual systems often makes the work of one organization valueless to another.

The administrative agencies of the state of Massachusetts have been reorganized with the adoption of nineteen departments, of which four are old and fifteen new departments.

The Department of Education includes not only the functions of the old board of education, but the free public library commissioners, the Bureau of Immigration, and the Commission for the Blind. The head of the department has general supervision over the work, while the independence of the individual bodies is to be temporarily maintained.

Mr. Wm. J. Hyland, President of the school board at Hoosick Falls, N. Y., retired after twenty-one years of service.

A law enacted by the recent session of the North Dakota state legislature creates an educational commission to do certain work performed in the past by the state superintendent.

The commission has charge and supervision of the certification of teachers, standardization of schools, examinations for eighth grade and high school pupils; preparation of courses of study for the several classes of public schools, and such other work as may be assigned by the state board of education.

The commission consists of the state superintendent, *ex officio*, and four educators elected by the state board of administration.

Mr. Wm. C. Hobbs, of Auburn, R. I., has been elected superintendent of schools at Bristol, to succeed T. H. DeCoudres.

Mr. David A. Grove, of Oxford, O., has been appointed professor of psychology and education at the Western College for Women, Oxford.

## The Parents of Every Pupil are interested in his physical progress, particularly.

Every school should keep a monthly record of the weight and height of each pupil. The progress of the child, as he grows and develops along with his mental training, will please his parents far beyond your expectations.

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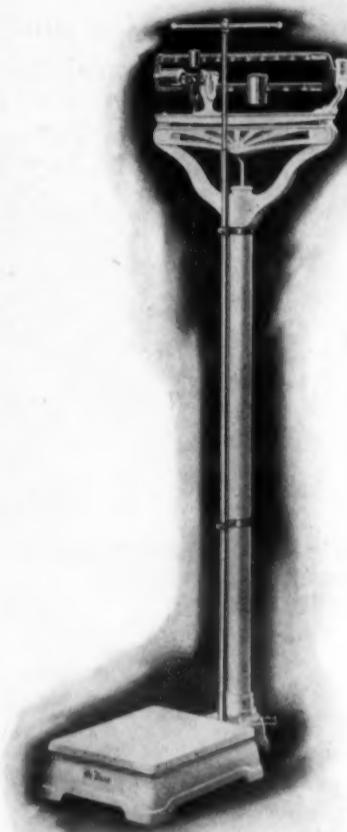
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#### MISSOULA SALARY SCHEDULE.

The school board of Missoula, Mont., has adopted a salary schedule which provides for increases of approximately 25 per cent. Teachers with one year's experience will be paid \$1,100; two years, \$1,150; three years, \$1,260; four years, one of which is in Missoula, \$1,320; five years, two of which are in Missoula, \$1,400; six years, three of which are in Missoula, \$1,500. Special teachers will be given \$5 per month more than the above schedule.

The salary of the ward principals has been raised to \$2,000 per year and that of the superintendent to \$4,000.

The following rules have been adopted to govern the operation of the schedule:

1. No teacher may be newly employed who is not a graduate of a two-year normal school and a four-year high school, or whose course in college does not exceed the scholastic requirements for instructors. At least one year's experience of nine school months is required, with preference given to those with two or more years of experience.

2. In employing teachers the board will be guided by the recommendations of the superintendent and he in turn by the recommendations of the principals and supervisors when the re-employment of teachers is considered. In the latter case, the board reserves the right to withhold advancement on the schedule, because of mediocre service, or to advance a teacher more rapidly because of superior service, or to demote on the scale because of lack of cooperation, indifferent service or non-progressive teaching.

3. In case of gross insubordination, or willful neglect of duty the contract of the teacher shall cease, following notice given by superintendent.

4. Teachers who begin to teach after the opening of the school year, or who resign or accept leave of absence or are dismissed from the service before the close of the year, may receive only such proportion of the vacation salary as the number of days taught bears to the whole number of days in the school year. The vacation salary is paid during the vacation months and not when the teacher quits teaching.

5. A teacher who resigns after the first day of August can make no claim for any part of the

#### August salary.

6. The marriage of a lady teacher during the term of employment is equivalent to her resignation.

7. Teachers are allowed ten days during each year for personal sickness or death in the family, without loss of pay.

8. Teachers must devote their entire time during the portion of the year when the schools are in session, to the work of their respective positions, and they may not engage in any other activity for pay during that period, without the consent of the board.

#### TULSA SALARY SCHEDULE.

The teachers' committee and the superintendent of schools have presented to the board at Tulsa, Okla., a revised salary schedule for teachers to be effective during the year 1919-20. The schedule provides that the rank of a teacher shall be determined from data furnished by the supervisors and principals and shall include a rating of thirty per cent for personal fitness, thirty per cent for preparation and forty per cent for teaching power and results. Teachers are to be divided into four groups, Group A to be rated 96 to 100 per cent, Group B, 90 to 96 per cent, Group C, 80 to 89 per cent, and Group D, below 80 per cent. Teachers are also to be classified according to experience, Class I to consist of teachers with more than three years' experience, Class II, those with three years' experience, Class III, those with two years' experience and Class IV, those with less than two years' experience.

In the revised schedule a readjustment of the former salaries have been made necessary as follows: Salaries ranging from \$75 to \$85 in the grades are to be increased by \$15; salaries from \$87.50 to \$100 are to be increased by \$12.50, and those ranging from \$102.50 and upward by \$10 per month.

In the high school, salaries ranging from \$100 to \$115 will be increased by \$12.50; salaries ranging from \$117.50 to \$125 will be raised by \$7.50, and those ranging from \$127.50 upward, by \$5 per month.

Advancements in salary will be made according to the ratings of teachers. Teachers rated below 80 per cent are not to be retained; teachers

rated from 80 to 90 per cent will be given no increase; those rated from 90 to 96 per cent will be given increases of \$3.50 per month, and those ranging from 96 to 100 per cent, increases of \$5 per month. Teachers in the grades will begin at a minimum of \$1,080 per year of twelve months and end at a maximum of \$1,500. High school teachers will begin at a minimum of \$1,200 per year of twelve months and end at a maximum of \$1,800. Directing teachers and supervisors will be paid a maximum of \$2,500 and principals will receive from \$1,500 to \$3,000.

A further advance of \$2.50 per month will be paid for six weeks at a summer school and \$5 for twelve weeks' attendance.

#### HYGIENE AND SANITATION.

The Cleveland School of Education at Cleveland, O., during July offered a course in nursing for school nurses who desired to present their work in accordance with the best principles of psychology. The subjects touched upon were methods of teaching personal hygiene and individual and group health habits. The course drew a large enrollment of students.

Cumberland, R. I. Medical inspection of school children is to be introduced with the opening of the fall term in September. The work has been introduced in addition to the dental inspections at present in operation. The State pays one-half of the salary of the medical inspector.

Easthampton, Mass. A school nurse has been employed for the next year. The work will be begun with the inspection of children who will enter the first grade in September.

The New York board of education has adopted a luncheon service policy under which it is proposed to furnish luncheons at cost to the school children in districts which the board of health may designate. The latter will have charge of examinations and weighing of children.

The lunches which have been served in the schools during the past six years have been made possible thru the efforts of the school lunch committee of the New York Association for Improvement of the Condition of the Poor. During the last year alone, the committee served 824,000 lunches at an average cost of from eight to ten cents. Mrs. Emma L. Murray is head of the school lunch committee.



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When the Miessner Piano was first introduced there were many who were skeptical about predicting success for it—it was so radical a departure in piano building.

Everyone admitted, however, that the idea was right—that a small piano, easy to move and low enough for the teacher to look over while she played, was the ideal instrument for school and chorus singing. But they doubted that a really big, beautiful tone could be produced by such a small piano.

Now, after a year of actual use in all parts of the United States the doubters have become the strongest advocates of the Miessner and commendatory letters pour in from the four corners of the country lauding "the little piano with the big tone."

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Severe tests have proven that the Miessner's remarkable tone *stays*, even through hard usage.

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The Miessner Piano costs only about half as much as the average upright piano. We make an attractive offer to schools because of the valuable publicity gained in each community through its use. Fill in the coupon below, send it in to us and we will mail you the Miessner Piano Catalog and explanation of our popular sales plan for schools.

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Without any obligation on my part, please send me the Miessner catalog and full information about your special offer to Schools.

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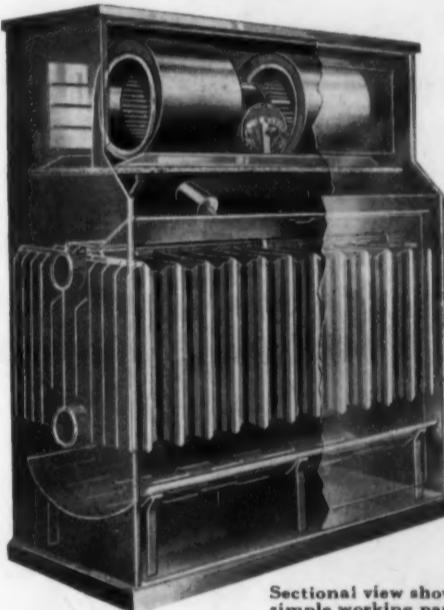
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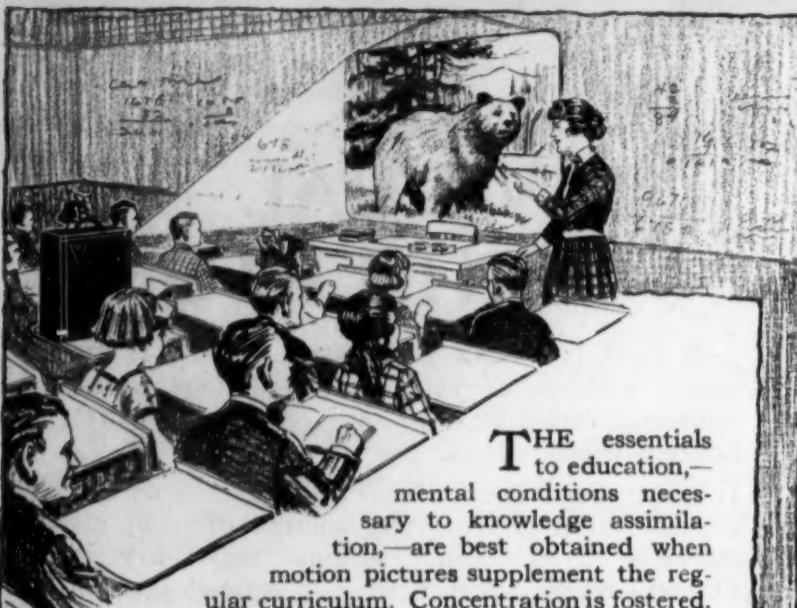


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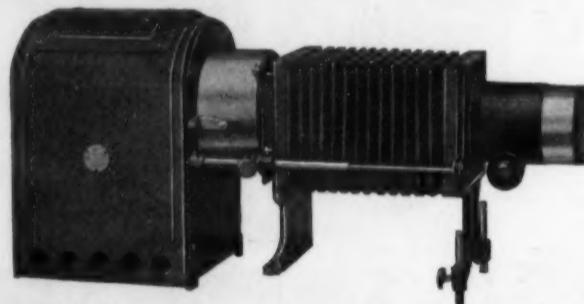
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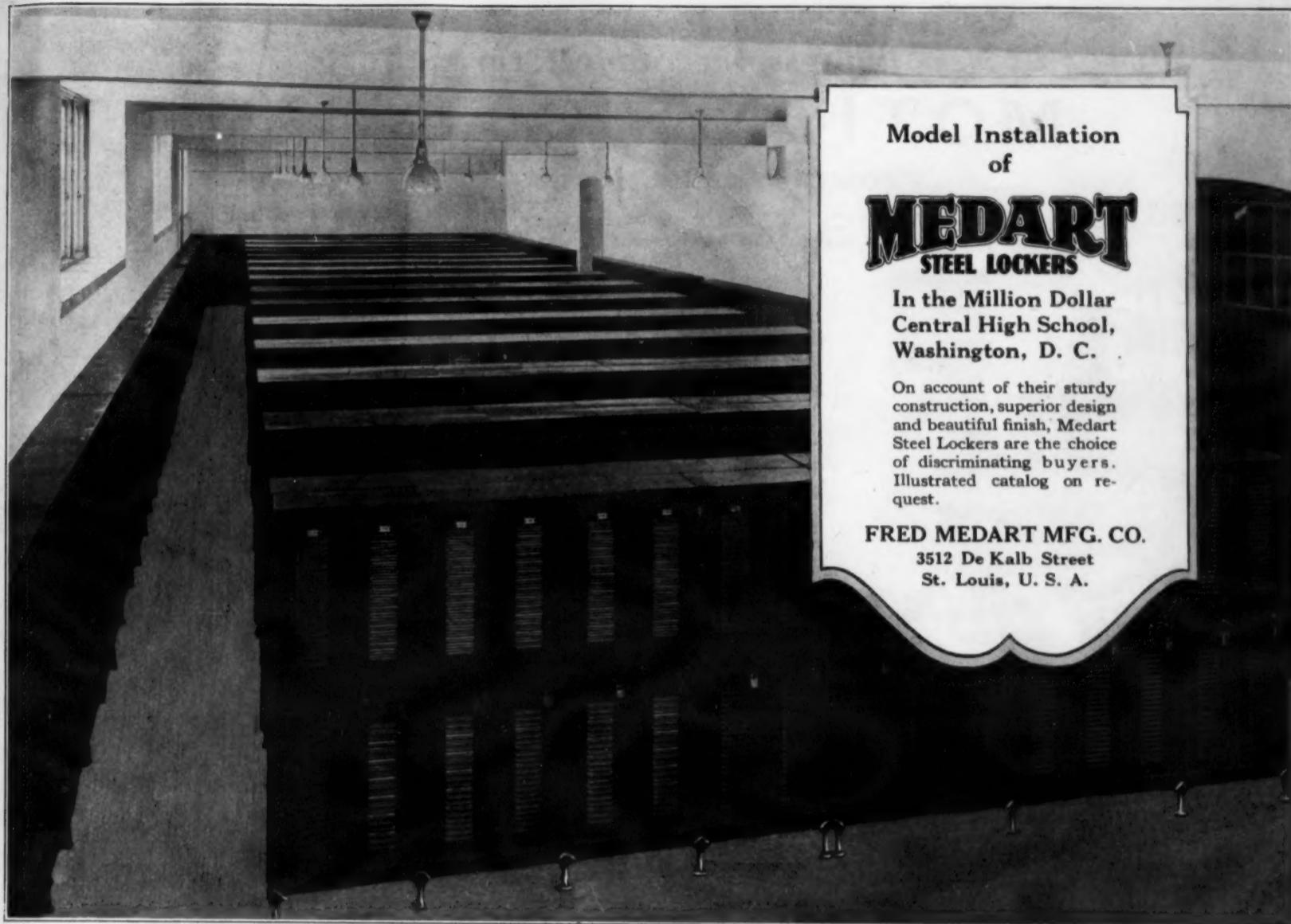
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**BUILDING AND FINANCE.**

The school per capita for the state of Kentucky will be \$6.10 this year, or \$0.85 higher than last year. There is available for school purposes the sum of \$4,008,428, or about \$650,000 more than last year.

The city commissioners of Charlotte, N. C., have asked for an increased school tax of four cents to cover an increase of \$7,500 in the fund for repairs to buildings and extensions of heating systems and toilet facilities.

Big Rapids, Mich. The school taxes for the year 1919-20 will amount to \$31,000, exceeding that of 1918 by \$8,000.

The state school tax has been apportioned among 92 counties of the state of Indiana. The total amount was \$1,900,237.84 or a per capita apportionment of \$2.44.

Muscatine, Ia. The school fund for the next year will amount to \$150,000, or an increase of approximately thirty per cent.

Mattoon, Ill. The board has adopted a tax levy of \$1 on each \$100 of assessed property valuation for building purposes and \$3 on each \$100 for educational purposes. A total of \$96,000 is to be raised from the levy.

Moline, Ill. The school tax levy has been raised to four mills, adding \$80,000 to the school funds.

Marshalltown, Ia. The cost of operating the schools of the city has been raised \$40,000 for the next school year, making it necessary to ask for \$180,000 for maintenance purposes.

The Chicago board of education has approved a recommendation that the secretary place on file with the city council the 1919 tax levy ordinance, calling for \$22,275,000 to cover educational expenses and \$6,300,000 for the building program of the next year.

Miss Annie C. Crosby, of Boston, has offered to donate \$40,000 to the city of Belfast, Me., if a similar amount is raised by subscription within a year toward a school building to cost not less than \$100,000. The \$80,000 raised is to be invested in Liberty Bonds and remain until, by interest or other means, the fund finally reaches \$100,000.

The school board of Detroit, Mich., has adopted

a new policy in the preparation of the annual school budget. It is proposed that the several parts of the budget shall be made up by special committees and that the whole shall be submitted to the entire board for final consideration before its delivery to the city council in January. The new plan permits a more detailed study of school needs and costs and effects a considerable saving in time and effort.

The Massachusetts Senate has passed to final reading a bill establishing a fund of \$4,000,000 for the maintenance of educational standards in small communities.

The annual budget of the school board of Cincinnati for the next year shows an increase of \$596,022 over last year. The estimated resources of the board for the year are \$4,093,570.

The public schools of Oakland, Cal., will receive more than \$13,000 of the state fund this year. In addition, the city council has granted a five cent tax levy for portable buildings, allowing between \$70,000 and \$72,000 for building purposes.

The Chicago school board has passed a rule requiring all contractors doing business with the board to purchase their bonds of one company. It is believed that the Southern Surety Company has secured control of the bonding business because of connections enjoyed by one of the members of the board. The change has been made to insure the payment of obligations incurred by sureties, and to prevent the loss of time and money where surety companies do not live up to their contracts.

The school board of Belleville, Ill., recently went on a tour of inspection of high schools in Illinois and Indiana. The trip was made in the interest of a new junior high school which is soon to be erected. The building will be two stories and basement and will cost \$200,000.

The school board of Cleveland, O., has entered into contract with ten fuel companies for furnishing 125 school buildings with \$35,000 tons of coal for the winter. The contracts call for slack coal at \$4.36 a ton, nut at \$5.04, mine run at \$6.62, Pocahontas at \$7.99, hard, egg and stove at \$10.67 and anchor lump at \$6.82. The total value of the entire supply of coal is estimated at \$200,000.

The state of Kansas is building better schools, both for high schools and for district schools, in the opinion of Fred Seaman, chief clerk in the office of the state superintendent. The average cost for new buildings is from \$3,000 to \$4,500 instead of the former amount of a few hundred dollars for the box type of building. Scores of school boards have asked for specifications for modern buildings and there appears to be an increasing number of bond issues. The amount of bond issues ranges from \$25,000 to \$45,000.

The state board of investments of Minnesota has authorized the payment of \$300,000 in loans to the school districts. Among the applications for new loans is one of \$300,000 for a high school at Austin.

The school board of Quincy, Ill., has adopted a budget of \$354,525, with \$104,800 to be devoted to buildings and \$249,725 to educational purposes. The budget makes provisions for increases in teachers' salaries, janitors' salaries, superintendent, business manager and truant officer.

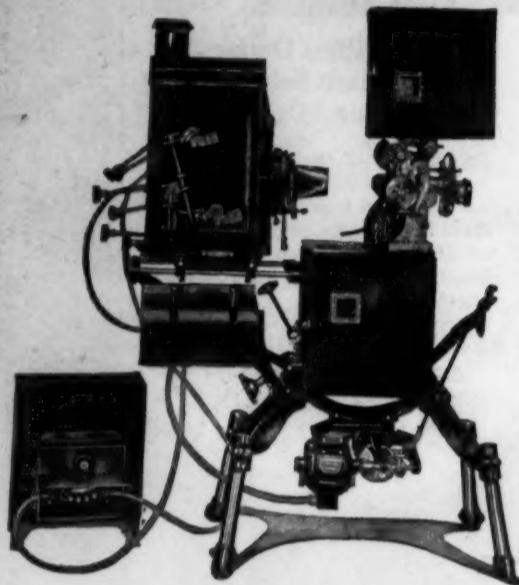
The business superintendent of the schools of Minneapolis has prepared a budget of approximately \$3,500,000 for the next year.

**SELLING THE SCHOOLS TO THE PUBLIC.**

That publicity frequently is all that is needed to secure funds for public schools was indicated by the experience of the Indianapolis system, which has just secured passage of a budget providing for an expenditure of \$3,679,834 for the fiscal year ending June 30, 1920. The budget, presented by George C. Hitt, business director of the schools, was approved without change by the board of school commissioners. This fact is noteworthy in comparison with the ease with which a big increase in taxes was allowed by the legislature at its last session. Ordinarily the Indianapolis schools, like others throughout the State, are forced to fight for every cent. On this occasion, the schools allowed the public to do its fighting for them.

The proposition, according to the decision finally reached by the administrative officers, was simply one of informing the public of the situation in which the schools found themselves. Public interest in the schools existed already, it was argued. It was merely necessary to gratify a

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thirst for information which already was in evidence. The idea, briefly, was to get away from the secret service system, and make the business of the public schools everybody's business.

The public was "sold" on the necessity for more money for the schools during the month just preceding the meeting of the legislature. One of the big aids in the schools' publicity campaign was a 50-page booklet, giving hard, cold facts about Indianapolis schools. One of the striking features of the brochure was a graph, showing the salaries of teachers in the Indianapolis public schools as compared to those paid in 24 other cities of about the same relative size. In low salaries, Indianapolis held the dubious honor of being near the top of the list, only Syracuse, N. Y., teachers being worse off in this respect. San Francisco, the graph indicated, was the most progressive city, with salaries ranging from \$850 to \$1650 in the elementary schools.

Another graph compared salaries paid secondary teachers, and Indianapolis was shown to be even worse off than in the previous example, paying absolutely the lowest salaries in the country.

Other diagrams showed that Indianapolis has one of the smallest per capita net debts of any community of similar size and importance in the country, while still another gave a forceful argument for a higher tax, proving that the per capita revenue was too low as compared with other cities.

The purpose, of course, was to arouse the civic pride of residents of Indianapolis by pointing out that under the old system, the best teachers had either deserted their professions already, or would be forced to do so, unless they were paid salaries which would enable them to live in comfort, at least.

About 10,000 of the booklets were printed, the small advertising fund available prohibiting a more lavish expenditure. It was necessary to turn this small number to the best possible advantage, and every teacher in the schools was equipped with one as an argument for more pay. In addition, copies were sent to men known to have the interests of the public school at heart, and who wielded power in their respective walks of life.

A speakers' bureau helped put the increased budget over. This was formed of leaders in various industries who had been identified with movements in favor of a better, more progressive city. No difficulty was encountered in securing such men to speak, the workers in the school administration noting that the average man, leader or not, is rather fond of giving his views to a crowd, especially when he happens to be sure of his ground.

The only objection advanced by the speakers was that they knew nothing about the schools and their needs. "Have a booklet," was the response. "It will tell you everything."

The speakers' bureau provided orators at all sorts of public meetings, Parent-Teachers' gatherings, and in fact, any sort of an assemblage where there was a chance to give the facts to voters.

In addition, ministers of Indianapolis were presented with the booklets, and asked to refer to the condition of the public schools from their pulpits if they were impressed with existing conditions. Practically every minister in Indianapolis responded with a sermon, calling attention to the low salaries paid teachers and the attending danger of a lowering of the high educational standards of the city.

The campaign, covering only a month, was short and sharp. The legislature met, the bill providing for a tax of \$1.03 on each hundred dollars of taxable property was presented—and passed without demur. The measure went over so easily that the only question now raised is why it wasn't done before.

Expenditures in the schools will about approximate those of the past fiscal year, with the exception of the salary item. Virtually all of the increased revenue of the schools will go to the teachers in the form of increased salary checks. The payroll this year will be about \$2,100,000, as compared with \$1,400,000 last. Not all of the pay increases asked and regarded as proper have been granted, but teachers have been allowed as much as possible in the way of more money, years of service and their training being basic considerations.

The elementary schedule has been raised from \$500-\$975 to \$800-\$1,600. Secondary teachers will

get from \$1,000 to \$2,500, instead of from \$900 to \$1,475, as heretofore.

**NEWS OF SUPERINTENDENTS.**

The committee on instruction of the St. Louis board of education has recommended that W. J. S. Bryan, C. G. Rathmann and John Rush Powell be reappointed as assistant superintendents.

Mr. William L. Bodine of the compulsory education department of the Chicago board of education was tendered a banquet on July 8th in celebration of his twenty years of service with the board. Supt. P. E. Mortenson and members of the school board and compulsory education department were present.

Mr. C. M. McDaniel, formerly superintendent of schools at Hammond, Ind., has purchased the Thurston Teachers' Agency at Chicago. Mr. McDaniel took possession of the business in September.

Mr. Lewis W. Smith of the Thornton Township School at Harvey, Ill., has been appointed Superintendent of the Joliet Township High School at Joliet, Ill. Mr. Smith is a graduate of Dennison University and of Chicago University. He was an instructor for two years at Pillsbury Academy, Minn., and at the west side Aurora high school. Since 1908 he had been principal of the township high school at Harvey.

Mr. S. E. Hargis of Brookings, S. D., has been appointed superintendent of schools at Redwood Falls for the coming year.

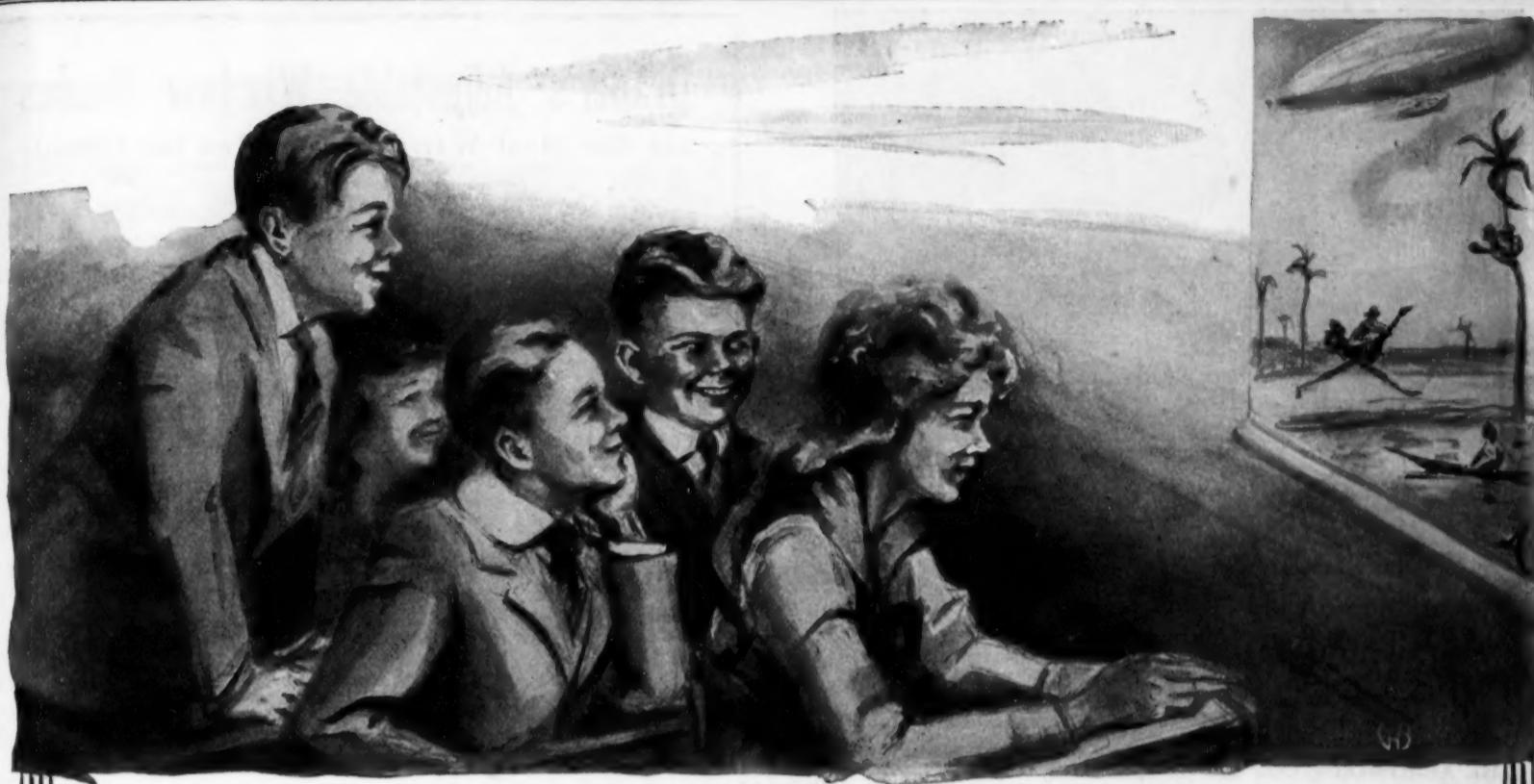
Mr. John D. Whittier, formerly state club leader for boys' and girls' club work in Vermont, has been appointed Supervisor of Elementary School Work for the state.

Mr. J. J. Philips of Galion, O., has been appointed superintendent of schools at Bucyrus, at a salary of \$3,000.

Mr. F. M. Price, principal of the Roagland School at Fort Wayne, Ind., has been appointed assistant superintendent of schools in charge of the supervision of grades from the fourth to the eighth. Mr. Price entered upon his duties on August first.

Mr. Geo. A. Curtis of Traverse City, Mich., has been elected superintendent of schools at Alpena.

Mr. W. F. Tribble has been reelected as superintendent of schools at Dallas, Ga.



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138. Rough Stuff (Story of making carbondum.)
140. The Story of Steel.
145. Good Roads.
147. Going Up (Ascent of Mt. Hood.)
148. Can the Fish (Story of salmon packing.)
150. From Mud to Mug (Story of pottery making.)
151. Making Ukeleles.
152. When Black is Red (Story of the great newspaper.)
154. Pure Havana (Trip through Havana.)
157. School Days (Progress in American Schools.)
159. Sweetness (Story of making sugar.)
160. A Reel Journey to the Capital of Panama.
161. God's Handiwork—Scenic Wonders in Canadian Rockies.
163. Days of Real Sport—A Boy Scout Picture.

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IF YOUR SCHOOLROOMS ARE EQUIPPED WITH

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#### SELF BALANCING ADJUSTABLE FIXTURES

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NOT OPAQUE  
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Upon receipt of a set of plans, or a list of window sizes, quotations will be furnished at once.

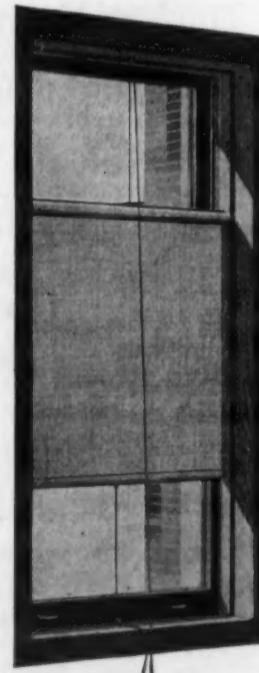
THE ORIGINAL

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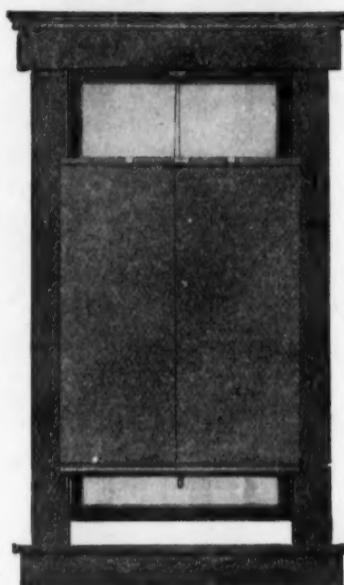
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Self-Balancing Adjustable  
Shade Fixtures



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are the ideal Window Shades for schools



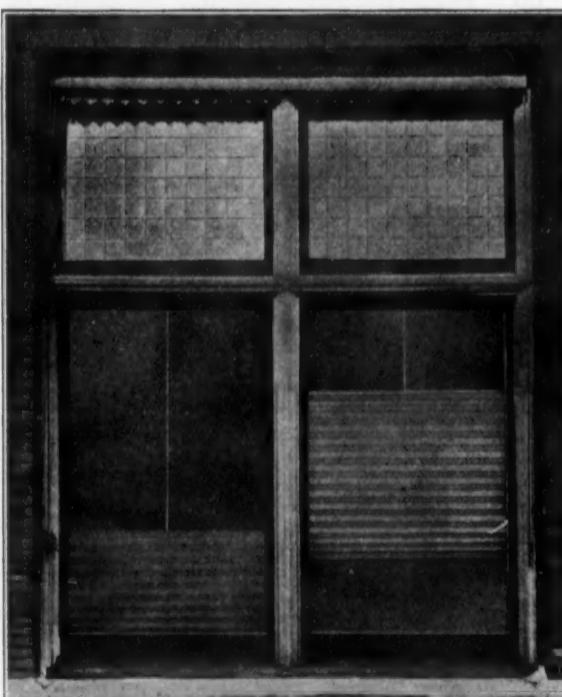
#### DRAFTER'S ADJUSTABLE WINDOW SHADES

solve the problem of shutting out of the schoolroom the glaring rays of the sun without shutting out the light. They protect the eyes of the pupils and the teacher and remove all the strain due to improper regulation of light in the schoolroom. They can be adjusted to meet all conditions without any trouble. They are made of good, substantial material and quality has not been overlooked.

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The United States Government has recently purchased over 1000 Perennial Shades for use in the Recuperation Camp at Denver.

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The best schools throughout this country and abroad are adopting Holophane lighting units as standard equipment. Holophane is reducing current costs and conserving the eyesight of future citizens everywhere.

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#### THE TOWEL QUESTION.

The communicating of disease by means of the hands is a subject on which school authorities are well informed. They realize the danger of providing the pupils with a common towel or worse still, of providing no towel at all. The question then resolves itself into the simple matter of determining what is the most sanitary individual towel at the lowest cost.

At first thought the roll of paper toweling would seem the most economical form. But have you ever watched a person unroll three or four towels when he needs but one? Have you ever, yourself, in tearing off one towel, taken half the next three with it? You can see how quickly this small initial saving on a permanent fixture would be eaten up by careless or even accidental waste. The high schools in one of our large cities serving 5,000 pupils, with 122 cabinets installed, used 72 cases of Onliwon towels last year at an average cost of .07½c a pupil.

The Onliwon cabinet excels not only in economy but also in sanitation. To be truly aseptic a towel must be untouched by anyone but the user. Moreover, it must be removed without the aid of levers or buttons to press, since these may harbor germs deposited by wet hands. The Onliwon towels are so interfolded that a new one falls automatically into place each time a towel is removed. The pupil who uses an Onliwon towel runs no danger of diseases which may be communicated by means of the hands.

#### CATALOG OF EDUCATIONAL FILMS.

##### A Self Starter of Ford Movies.

The question has been seriously asked whether the motion picture film will do for education what the gasoline motor has done for transportation. Will it revolutionize teaching methods as it has revolutionized amusement?

At least one firm believes that motion pictures are of immense educational influence and has prepared a library of educational films specially suited for school use. The films are widely known as the Ford Educational Weekly, and have been collected under the auspices of the Ford Motor Company. Ford photographers have

traveled to all parts of the United States, Mexico, and to foreign lands to obtain films bearing on many departments of knowledge such as history, geography, geology, botany, zoology, etc.

A clue to the character of the Ford films is given in the new catalog of the Ford Educational Weekly which has just been prepared by Fitzpatrick & McElroy, sole representatives and distributors of the films. This catalog is in itself educational, in that it gives a clue to the wide scope of the educational service of the motion picture. Copies are available and will be sent to any school authority on request.

#### FIRE TRAGEDIES AND THEIR REMEDY.

"In the last eight years fire losses in schools, hospitals, colleges and asylums have amounted to forty million dollars."

This impressive sentence appears on the title page of a pamphlet on "fire tragedies and their remedy" just issued by the General Fire Extinguisher Company of Providence. The work is a decided departure from ordinary advertising literature in that it is made up in large part of photographic evidence of the results of fires in schools, charts of fire dangers, the opinions of fire experts on the need and value of fire protection and a list of schools and educational institutions which employ automatic sprinkler protection as the most dependable safeguard against fire.

The school board member or superintendent who would get a thoro understanding of the dangers of fire in his own community needs a copy of the present pamphlet for study and reference.

#### AN INTERNATIONAL MUNICIPAL EXPOSITION.

Since the recent announcement of the International Exposition of Municipal Equipment, to be held as a permanent institution in Grand Central Palace, New York, considerable comment has been made in interested circles. Miss Jeanne Carpenter, who is to be the exposition director, has received many letters from manufacturers of municipal equipment, city officials, and others, praising the idea and speaking sanguinely for the success of the enterprise. Miss Carpenter is the author of the book, "Municipal Housecleaning," and has had years of experience in the municipal equipment field. The exposition as planned by

her is to be decidedly practical and there will be an educational section which will include modern school equipment of all sorts.

The International Exposition of Municipal Equipment is to be one of the eight or nine expositions which will make up the great industrial trade mart of the Merchants and Manufacturers' Exchange, occupying the entire Grand Central Palace. The Municipal Exposition will be placed on one floor, with 50,000 square feet floor space. The Merchants and Manufacturers' Exchange of New York, which operates Grand Central Palace, is owned and controlled by the Nemours Trading Corporation, of which Alfred I. Dupont is president. This corporation has representatives in all leading cities, consisting of nineteen branch offices and three thousand foreign selling agencies.

The exposition is to include all that pertains to the instruction and proper management of municipalities—for education, water, heat, light, power, fire protection, health, policing, amusement, and other departments. Boards of education, city officials, municipal engineers, members of Chambers of Commerce from many cities throughout the world, will be invited to visit the Grand Central Palace and the permanent exposition will afford a most convenient means of putting the manufacturer of equipment in direct touch with interested buyers.

Miss Carpenter has an office at 405 Lexington Ave., New York City, for the convenience of interested school officials and manufacturers.

#### ISSUED NEW CATALOG.

The Wayne Works of Richmond, Indiana, manufacturers of the Wayne Standard School Cars, have just issued a new catalog of their full line of vehicles for school transportation. The firm manufactures three distinct types of horse-drawn school cars and five types of motor driven cars. The latter are furnished on Ford and Republic Chasses.

Not the least valuable section of the catalog is devoted to accessories required for adapting Wayne cars to the most unusual conditions of traffic and use. Among the accessories are such items as Wide Rims and Tires, Special Beauty Brakes, Heaters, Sleigh Runners, Three-Horse Hitches, Exhaust Heaters, etc.



*Plan  
School Shades  
for Fall  
Now*

WHILE school is closed prepare for improved ventilation and lighting.

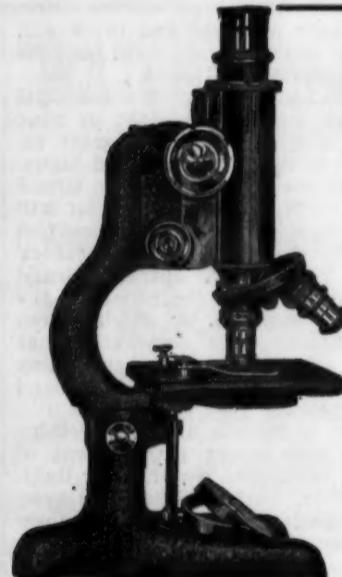
In thousands of schools where Superintendents and Teachers have proper regard for correct airing, and for care of the children's eyes, Oswego Tinted Cambric or Triplex Opaque on the celebrated Hartshorn Rollers have solved the problem, once and for all.

*Stewart Hartshorn*

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are again in the market—backed by the prestige which attaches to successful war service in any significant capacity.

Our release from this service is of course gradual. As the demands made upon us by the government are lessened from month to month,

however, we are enabled to increase delivery to our patrons.

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MICROSCOPE No. 64 has a side fine adjustment with 34 threads of the screw engaged as compared with an equivalent of but one in other makes. It has a "lateral travel"—an index to its position relative to its limits. No other make has this. It is equipped with Spencer Optics, which have been considered ideal for three-quarters of a century.

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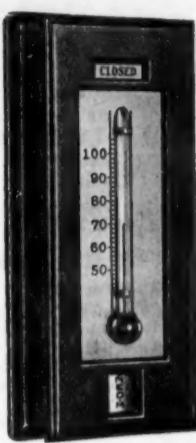
The Peerless Unit System provides positive ventilation in conjunction with a perfect heating system, without respect to outside temperatures, and insures a full supply for each room independent of the requirement of every other room.

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#### TEACHERS' SALARIES.

The governor of Pennsylvania has signed the teachers' salary increase bill providing for increases of 25 per cent for teachers receiving less than \$100 a month; twenty per cent for teachers receiving from \$100 to \$150; fifteen per cent for teachers receiving \$150, and ten per cent for those receiving more than \$200.

Davenport, Ia. Raises of \$100 have been given to each employee of the board of education. The increases are effective September first.

Palmer, Mass. An appropriation of \$5,000 has been made to cover increases of \$200 for teachers, effective on September first.

Montague, Mass. The citizens have voted increases of \$220 to the teachers, minus any increase received from the contracts for 1919-20.

A bill has been introduced in the Massachusetts legislature making the minimum salary of teachers \$650.

Chicago, Ill. The board has adopted a resolution providing for a minimum annual salary of \$1,000 for teachers, and a blanket wage increase ranging from \$100 to \$225, with back bonus from January, 1919. The new schedule which provides for temporary relief, covers the following increases:

Elementary teachers, first year, increase of \$225; second year, \$200; third year, \$175; fourth year, \$160; fifth year, \$125. All other high school and elementary teachers will be given increases of \$100 over the present salaries. The restoration of the bonus system gives critic teachers \$225, household arts teachers \$250, and teachers of the deaf, \$200.

High school substitutes are increased from \$6 to \$6.50 a day and elementary substitutes from \$3.75 to \$4.50 a day. Manual training and other special teachers are increased from \$5 to \$5.50 a day.

Hastings, Neb. The board has fixed the salary of teachers with one year or more experience at \$100, and those newly appointed at \$90.

Lancaster, O. The board has adopted a salary schedule for teachers under which teachers are classified as A, B and C. Teachers in Class A, with less than one year of normal training will be paid \$60 for the first year, \$65 for the second year, \$70 for the third year, \$75 for the fourth

year, \$80 for the fifth year, \$85 for the sixth year, \$90 for the seventh year, \$92.50 for the eighth year, and \$95 for the ninth year.

Teachers of Class B with one or more years of normal training but not graduates, will be paid \$65 for the first year, \$70 for the second year, \$75 for the third year, \$80 for the fourth year, \$85 for the fifth year, \$90 for the sixth year, \$92.50 for the seventh year, and \$95 for the eighth year.

Teachers of Class C will be paid \$70 for the first year, \$75 for the second year, \$80 for the third year, \$85 for the fourth year, \$90 for the fifth year, \$92.50 for the sixth year and \$95 for the seventh year.

Owosso, Mich. The city has adopted a budget of \$114,000, \$20,000 of which will be devoted to salary increases for teachers.

The California legislature has increased the state school fund \$2.50 a pupil. The increase will be used for the payment of teachers' salary raises amounting to \$250 a teacher.

Port Huron, Mich. Increases in the salaries of supervisors and normal school teachers will bring the cost of instruction up to \$122,800.

The school board of Augusta, Ga., has raised the minimum salary of teachers to \$60 a month.

Sonora, Tex. The minimum salary of teachers has been fixed at \$85 per month.

Lewiston, Me. The board has given the teachers increases of \$200. The salary of the superintendent has been increased by \$300.

Cambridge, O. The board has increased the salaries of the grade teachers twenty-five per cent.

Indianapolis, Ind. The board has adopted a new salary schedule providing for increases of twenty-two per cent. The increases will reach a total of \$225,000.

Lenox, Mass. The teachers have been given increases of \$100.

Boston, Mass. Increases in salaries for teachers during the next year will represent an increase of half a million dollars.

Monroe, N. C. The pay of teachers in the grades has been raised from \$70 to \$75 per month.

Waltham, Mass. Beginning September 1st, all teachers who were in service in May, are to receive increases ranging from \$100 for kindergarten assistants and \$150 for elementary teach-

ers, and female high school teachers, to \$300 for male high school teachers. The salary of the high school principal has been raised to \$2,700 and that of the superintendent of schools to \$3,000. The increases raise the maximum salary for regular teachers to \$1,100, eighth grade teachers to \$1,200, and female high school assistants to \$1,300.

Tulsa, Okla. The board has adopted a salary schedule for teachers making a minimum salary of \$90 a month, payable in twelve monthly payments for the teacher who is a normal graduate. The new schedule raises the minimum yearly salary of grade teachers to \$1,080 and the maximum to \$1,500.

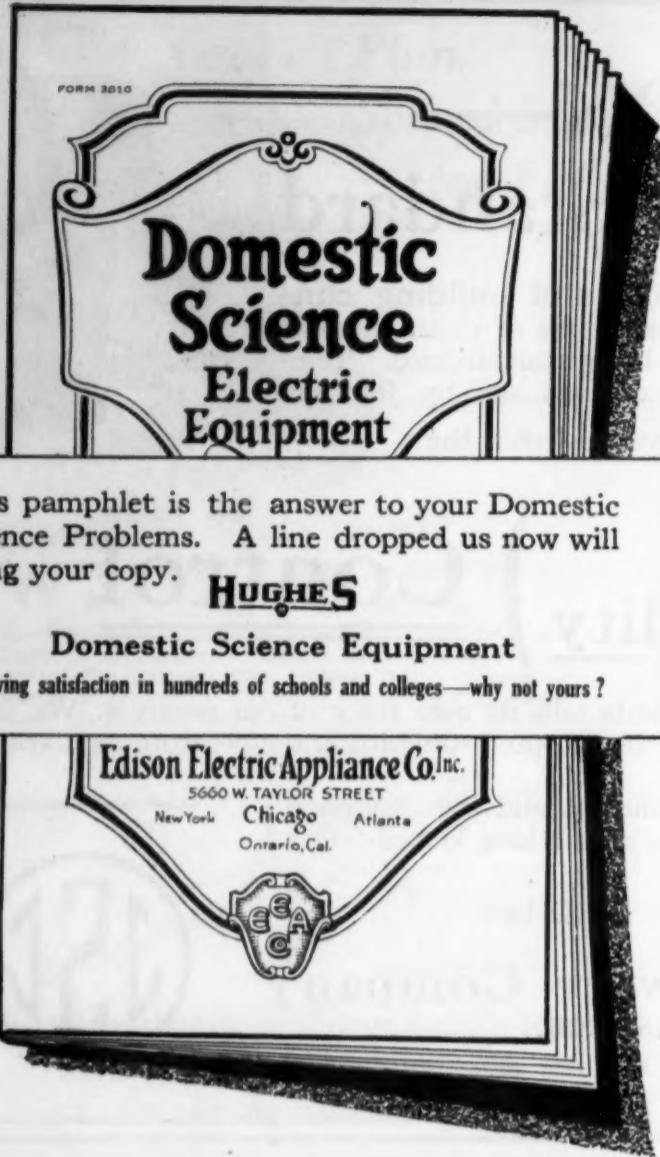
In addition to this, teachers will receive the regular advance according to the class in which they are listed. It is also provided that \$5 per month additional shall be given to any teacher who attends a summer school for twelve weeks for the purpose of improving herself.

Oklahoma City, Okla. The minimum salary of grade teachers has been raised from \$665 to \$760 and the maximum from \$1,045 to \$1,140. The minimum salary for high school teachers has been raised from \$1,050 to \$1,266 and the maximum salary to \$1,900. Ward school principals will receive from \$1,600 to \$2,000, while the high school principal has a salary of \$2,750 and the superintendent a salary of \$6,000.

The Committee on Teachers and Instruction of the New Orleans (La.) parish school board has rendered a report relative to the recent communication and address of the Associate Teachers' League and a communication of a committee of the Central Trades and Labor Council. The report, in general, characterizes as "incorrect and without basis" certain statements made by the teachers' league while other clauses in the communication are termed "unfair."

The communication and address dealt for the most part with the request that the compensation of teachers in the schools be increased, and contains expressions from various persons and authorities explaining why such increases should be made. The committee believes that the request and the reasons therefor were entirely unnecessary so far as the board is concerned.

It is pointed out that the board as a body, and the members as individuals, from their incum-



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bency in office, have committed themselves to the proposition that the salaries of teachers should be increased and they reaffirm their adherence to that decision. Whenever the opportunity and the revenues permitted, the board had with regard to its obligations, increased the salaries of the teachers.

It is further pointed out by the committee that it is unfair to take the minimum of \$65 per month as the basis for consideration of salaries, because that amount is paid only for the first year and is followed by gradual raises for six years until the maximum is reached. Comparatively few teachers receive \$65 a month, while large numbers are receiving \$80, \$90, \$95 and even higher salaries.

The Committee suggests that the funds be supplied by the city for salaries. The revenues are fixed by law and the principal sources are the state taxation based upon the number of educable children, the poll taxes and the tax on property located in the city and paid to the board thru the city treasurer. The only additional revenues other than the normal and nominal amount which may result from an increased assessment each year must be from an additional tax on the property in the city.

In answer to the charge that superior teachers were returned to their former classification and the salary reduced, the Committee pointed out that the immediate predecessors of the board abolished the classification of "superior" teachers because it created class distinction and resulted in the "superior" teachers receiving an additional compensation of \$10 a month to the detriment of the larger number who were not placed. This action caused dissatisfaction and unrest and created turmoil in the teaching corps.

A reduction in the number of months' pay from ten months was likewise the action of the predecessors. The saving in expenditures assisted in paying the extra \$10 per month to those who were placed in the favored class, if it did not make that course possible. During the last session the board increased the salaries of the teachers and extended the number of months to nine and one-quarter. This was further extended to nine and one-half months for the session of 1919-20.

The Committee contends that the salary of each teacher has been increased \$15 per month, and that in addition \$5 has been given to those teachers who have earned college degrees in order to obtain higher educational attainments.

### TEACHERS' SALARIES

A minimum salary of \$1,000 has been fixed for teachers in Illinois state normal schools. The new minimum went into effect July first.

Beginning September first, the salaries offered teachers in village and country schools of Michigan have been increased. The new scale raises salaries from \$45 to \$110 and from \$65 to \$100. Others are from \$100 to \$125.

The school board of LaPorte, Ind., has adopted a new scale. Grade teachers of less than five years' experience will be given \$115 a month. Those with five or more, will receive \$1,400 for men, and \$1,100 to \$1,200 for women.

The teachers of California have been given increases of about \$250 each, making the total cost to the state of about \$4,250,000.

The legislature of Massachusetts has provided for increases of \$100 in teachers' salaries. Teachers receiving not less than \$850 will be given \$200. Those receiving not less than \$750 will receive \$150 more, and teachers receiving not less than \$650 will receive \$100 more.

The school board of Hamilton, O., has granted an increase of 36 per cent to elementary teachers and an increase from 12½ to 15 per cent to high school teachers.

The Illinois legislature has provided for increased compensation of county superintendents thru a new law passed at the last session. The law applies to superintendents who entered upon the discharge of their duties since July 1, 1919, and the salaries are fixed in accordance with the population of the counties as shown by the census of 1910. Additional compensation may be paid quarterly for excellent service. The scale provides for the following salaries:

Less than twelve thousand, \$1,900.

More than twelve thousand, \$2,100.

More than twenty thousand, \$2,400.

More than twenty-eight thousand, \$2,600.

More than thirty-six thousand, \$2,800.

More than fifty thousand, \$3,000.

More than seventy-five thousand, \$3,400.

More than five hundred thousand, \$9,000.

The school administration at Bloomington, Ind., has met the salary problem by reducing the number of teachers, pro-rating their salaries among the staff left. Ten less instructors will be used than formerly during the term beginning September 15.

The New York board of education has recently adopted a by-law under which five years will be added to the maximum age limit in applying for regular teaching licenses. The rule reads:

"Applicants for any license who have rendered service under a substitute's license in the schools of the City of New York, within five years preceding the date of the examination, the maximum age may be increased by adding to forty years the number of years of such substitute service not exceeding five full years. A year's service as substitute teacher may be deemed to consist of a minimum of 160 days within any school year."

The Porto Rico legislature, at its recent session, made provision for the employment of twenty elementary principals at salaries of \$900; 150 teachers of English in grammar grades at salaries of \$900; 1,200 grade teachers at salaries of \$720; 1,700 rural teachers at salaries of \$540; forty special teachers of agriculture, at salaries of \$900, and sixty continuation teachers for manual training and home economics, at salaries of \$900. The term covers ten months for all grades and school sessions open on September first.

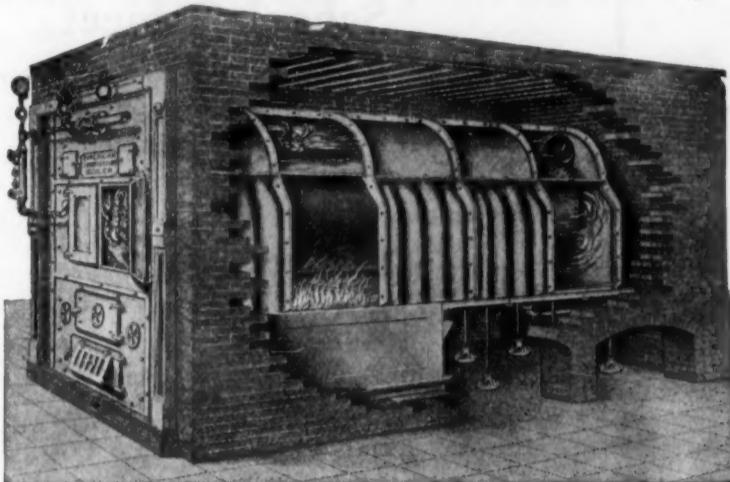
Louisville, Ky. The board of education has raised the minimum salary from \$55 to \$70 for a period of 8½ months, with the possibility of an extension of the term to ten months provided additional funds are granted.

Teachers in elementary schools who have taught one year will receive \$72.50 a month, with the percentage of increase decreasing to the maximum of \$105 a month.

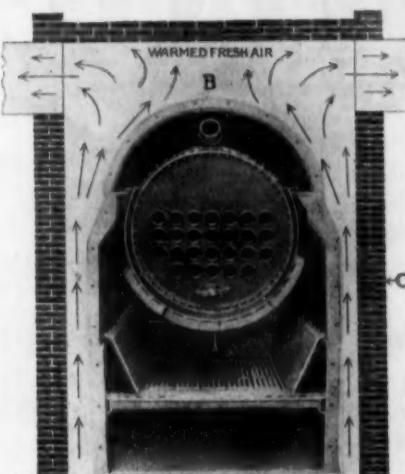
High school teachers who receive salaries below \$800 will receive increases of \$175 a year and those who are above \$800, will receive \$150 additional.

The elementary principals who receive less than \$1,350 will be increased by \$150 a year and those receiving \$1,350 or more, will be given increases of \$100 a year.

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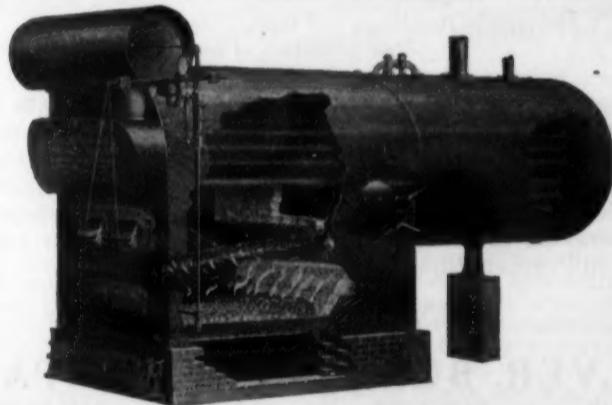
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## Vocational Science

Practically every trade school of importance now gives the student training in the technical knowledge related to his trade, as the really skilled worker must be familiar with the reasons underlying the various operations which he performs.

With this end in view W. H. Dooley, in charge of Navy Yard Continuation School for New York Board of Education, has written "Vocational Science for Metal Workers" and "Vocational Science for Wood Workers." These books will be available early in August.

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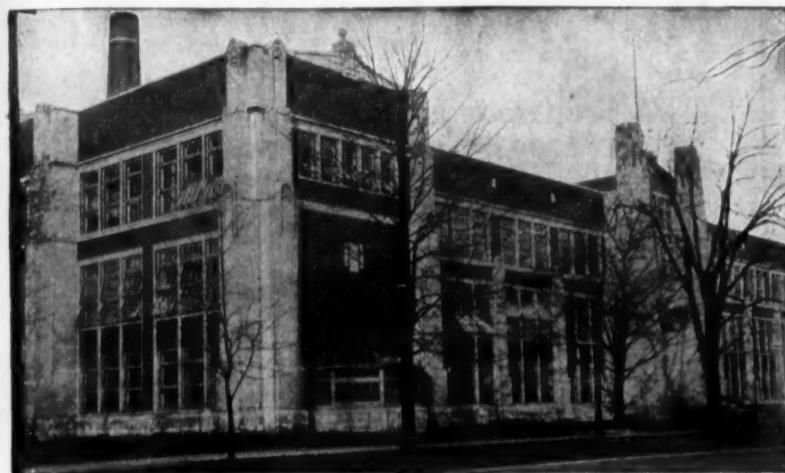
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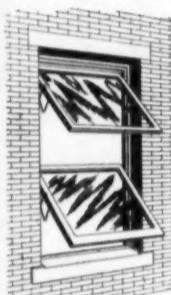
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By Melville Thurston Cook. Cloth, 261 pages. Price, \$1.60, net. J. B. Lippincott Co., Philadelphia, Pa.

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(Continued on Page 99)

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By Evie Corney and George W. Dorland. Cloth, 242 pages. Price, 60 cents. D. C. Heath & Co., Boston, New York, Chicago.

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By Annie E. Moore. Cloth, 124 pages. The Macmillan Co., New York.

This supplementary reader for the advanced first grade is made up of material relating to thrift, the Red Cross, food economy and other forms of service which were developed during the war. It is exceedingly well handled and should find wide favor while the interest in the subject matter lasts.

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By James H. Worman and Carlos Bransby. Cloth, 129 pages. Price, 80 cents. American Book Co., New York, Chicago, Boston.

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By Alfred Monroe Kenyon and Louis Ingold. Cloth, 148 pages. Price, \$1. Macmillan Co., New York.

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### A Modern French Grammar.

By Philippe De La Rochelle. Cloth, 547 pages. Price, \$1.50. G. P. Putnam's Sons, New York, N. Y.

This is a complete formal grammar for advanced college classes. Its chief value is to be found in the constant emphasis on contrasts and comparisons between English and French for the purpose of developing in the student the ability to speak and write idiomatically and gracefully. The drills and exercises are very complete.

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By William Betz and Harrison E. Webb. 12mo, cloth, \$1.35. Ginn & Co., Boston.

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*(Continued from Page 97)*

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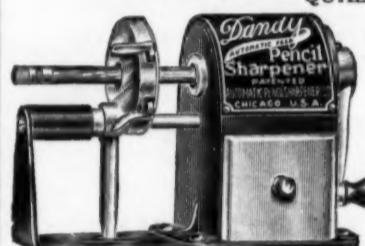
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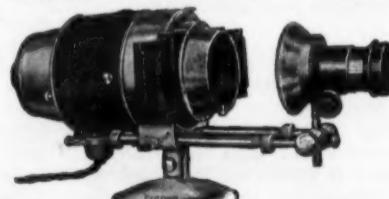
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# UNDERWOOD

## TWO SYSTEMS OF HEATING AND VENTILATION.

(Continued from Page 51)

securely fastened. I asked her to call the janitor, which she did. I inquired of him why he closed that window, and he replied, "Because I was cleaning my fires and if I let the fresh air in, it will take the steam from my boilers and the building will become chilled,"—a perfectly natural and truthful statement for this janitor to make, but a condition which produced ill effects in the classroom.

I may add that my visit to this school was in the afternoon within one-half hour of the closing of school sessions. Further examination of these fresh air inlets disclosed the fact that they were used for storage purposes, and were by no means clean. Dust and dirt were found on everything within the chamber.

One could not help being impressed by the contrast between the results obtained from the heating and ventilating systems in these two buildings, and can readily account for the statement from the principal quoted above.

A Stratford School.

In Stratford, Connecticut, is the Honey-Spot School, which is a comparatively new building, designed by a Boston architect. In it is installed the Wheeler system of heating and ventilation. The atmosphere in most of the rooms was above the average. There was not in any part of the building, the schoolhouse smell, and this, notwithstanding the fact that the pupils who attend are the children of foreigners, employed in the factories of Stratford and Bridgeport.

In one or two of the rooms I detected odors and because they appeared unusual, proceeded to investigate the reason. On the inside wall of these rooms were two vent outlets. Altho these outlets were open to their full capacity, and seemed to be of an area to exhaust the air from the room, comparatively little air was go-

ing out. This of course meant that something was wrong, notwithstanding the fact that the windows were partially open, and a considerable amount of air was coming in. I, therefore, went to the roof to examine the chimneys or outlets of these vent stacks, and found that on each vent-flue was installed a patent ventilator of the type that is supplied with a vane that turns the ventilator with the wind. There were louvers on this ventilator to be operated by a chain which would close the louvers at night, and prevent the exhaust of air thru the ventilators. In nearly every instance the louvers were either only partially open or entirely closed. This was caused by the chains being caught or broken, or the louvers stuck. In other words, the ventilators, instead of adding the drafts, were obstructing the flues. Again, the ventilators, themselves, were not, in my opinion, properly located. They were too near the roof.

This building has a large, overhanging cornice and no parapets. The roof is flat and pitches from the outside walls to a center drain. The wind, striking the outside walls of the building, is deflected upward; coming in contact with the overhanging cornice, it is thrown backward then onto the roof of the building, with the result that eddies are produced. Notwithstanding that the wind was coming from one direction, nearly every ventilator was swiveling on its center, and no two ventilators seemed to be taking the air from the same quarter. It might be said, that, to overcome this difficulty, these ventilators should be done away with entirely, and chimneys substituted, or, if the ventilators are to be maintained, they should be materially raised. The louver effect on this type of ventilator seems to be a decided failure. Again, the flues are connected with the ventilators by means of galvanized iron pipes, perhaps eighteen inches, more or less, in diameter. They passed thru a cold attic, and being without insulation, were chilled by the cold air on the out-

side, which must seriously impede the flow of warm air within and interfere with the ventilation of the room below. Such pipe connections should all be insulated above the roof as well as in the attic. The radiation in the rooms of this building is by no means as great as that found in other buildings visited, and it would seem that the engineer who installed the system must have been held within a very limited appropriation, or for some other good reason, did not install what appears to be sufficient radiation to make this system work under all conditions of outside temperature.

One teacher, at least, complained about the heating of her room, and I found what appeared to be a faulty steam circulation, undoubtedly due to some local condition. The principal of the school said that, on the whole, the heating of the building was satisfactory, and that, except on very cold days, they had no trouble. There is a woman janitress in charge of the heating apparatus of this building, and the boilers are located in a fireproof boiler-room, that is entirely separate from the building. There is no basement under this building, and all the returns pass thru a space under the building. I did not go into this air space to examine whether the pipes were thoroly covered. The teachers and the principal of the school seemed to be well pleased with the heating and ventilating system, and they appear to have good reasons for feeling so, notwithstanding the alleged defects I have pointed out above.

From the standpoint of a Massachusetts man, who has been taught to believe that thirty cubic feet of air per minute per pupil is essential for ventilation and that air should enter a classroom at a height of eight feet above the floor and should be exhausted from the room by a downward system of ventilation and that doors and windows should be preferably kept closed, the result of the observations noted above, were, to

(Concluded on Page 103)

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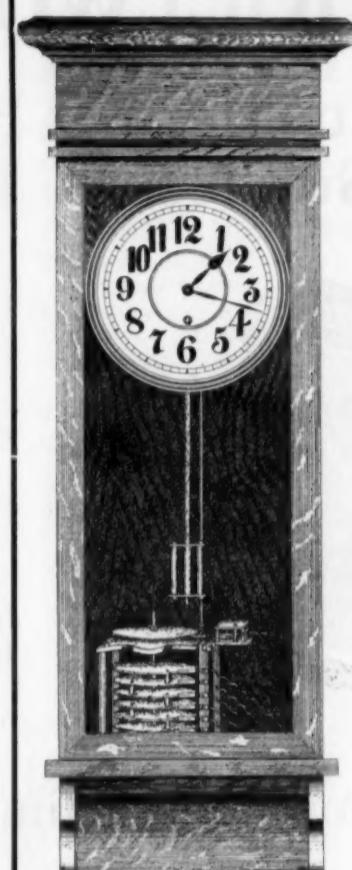
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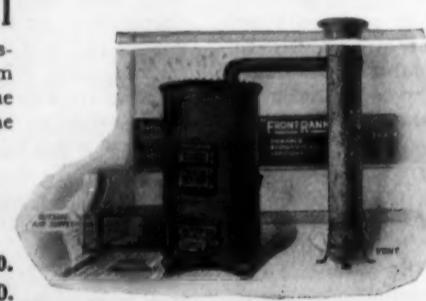
will not only assure more comfort and better health for both pupils and teacher in your school; it will

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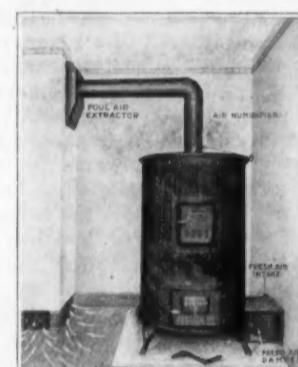
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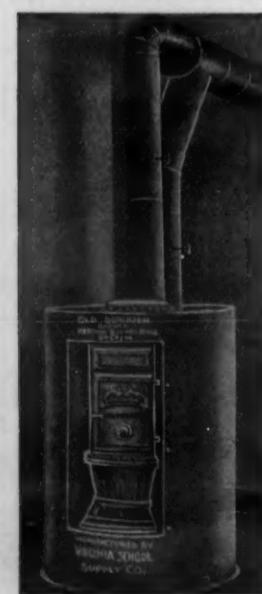
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will keep the room fresh with pure air yet warm and comfortable.

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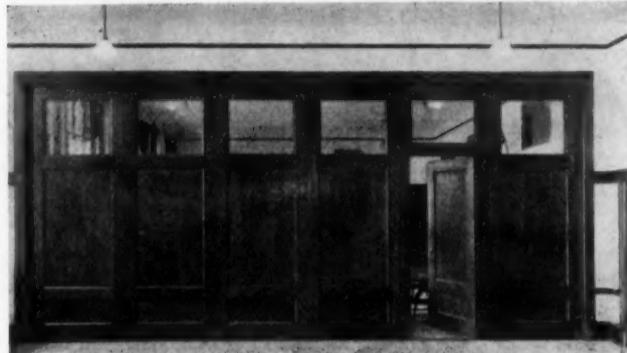
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(Concluded from Page 101)

say the least, surprising. I can readily understand how the principal of the Federal Hill School at Bristol, with the two members of the school committee of that town, could reverse their opinion and recommend the installation of this Wheeler system in their building.

I am no expert on the subject of heating and ventilation, yet I would unhesitatingly recommend that many of those who lay claim to the title, could spend a profitable day or two visiting the buildings referred to above. They are not perfect; far from it, and the suggestions that I have made for changes looking towards an improvement in the system, might be modified after more closely and thoroly studying the situation.

I have no figures indicating the cost of the installation of this system, nor have I any figures indicating the cost of the maintenance, yet I would be surprised if the installation of this "Wheeler" system was not very much cheaper than that of any other, and I would be astonished if I did not learn that the operation of such a system was not very much less than that of the popular systems installed thruout the country.

Another great advantage from this system of heating and ventilation is that it does not interfere with the space in the basement. There are no fan-rooms or stack-rooms, which take up the space so much needed for playroom and other school purposes.

The pupular objection against overheated air, so-called "canned" or "baked" air, cannot be applied in these cases, nor can the charge that the air is being brought thru dirty ducts and unkept stack-rooms, or that the air is laden with dirt drawn off the pavement or ground, as in the case of most fan or indirect systems. The air used for ventilation under the "Wheeler" system comes into the room thru the open window and is warmed and never over-

heated and therefore, loses a minimum of moisture. Thus a room heated in this way can be kept at a much lower temperature, because the normal humidity has not been greatly reduced.

#### PERSONAL NEWS OF SUPERINTENDENTS.

Mr. M. K. Weber, principal of the high school at Asheville, N. C., has been elected superintendent of schools to succeed W. A. Anderson.

Mr. J. N. Cunningham of Montezuma, Ia., has been elected superintendent of schools at Sheldon, Ia., for the next year.

Mr. C. W. Hoover, formerly principal of schools at Tunkhannock, Pa., has been appointed supervising principal of the West Shore Consolidated School District. The district consists of the boroughs of Camp Hill, Lemoyne, Wormleysburg, West Fairview and East Pennsboro Township, with headquarters at West Fairview.

Mr. E. B. Wetherow, superintendent of schools at Peru, Ind., has been appointed high school inspector for the state of Indiana. He succeeds Oscar H. Williams, who resigned to become state supervisor of teacher-training.

Mr. L. T. Frantz, who has been on a leave of absence for military service will resume the principalship of the Troutville, Va., High School.

Mr. W. A. Reid, principal of the Buchanan, Va., High School has been re-elected for session 1919-1920.

Mr. K. D. Browning, for three years principal of the New Castle, Va., High School, becomes principal of the Fincastle, Va., High School.

Mr. Charles Diggs of Colorado has been elected superintendent of schools at Ainsworth, Neb.

Mr. Lucien Hickman, formerly superintendent of schools at Frankfort, Ind., has resigned to accept a position as instructor in English at Indiana University. Mr. Hickman enters upon his duties on September 15th.

Mr. H. C. Johnson of Ogden, Utah, has resigned to accept the superintendency at San Diego, Cal. Mr. Johnson was for many years head of the school system at Aberdeen, S. D., and since 1917 had been superintendent at Ogden.

Mr. H. R. Edwards of Jamestown and Mr.

Edward A. Erickson of Bismarck have been re-appointed as state high school inspector and inspector of rural and graded schools respectively. Both of these men have served in their present positions for a number of years and are rated very high educationally.

Mr. John J. Bailey, Jr., of Bristol, R. I., has been elected superintendent of schools at Coventry, to succeed Henry N. Walradt. Mr. Bailey is a graduate of Rhode Island Normal School and has taught at Bristol for thirty years.

Mr. Oliver H. Toothaker has been elected superintendent of schools at Somerset and Swansea, Mass.

Mr. Frederick A. Wheeler has been elected superintendent of schools of the Wilbraham and Longmeadow District, Mass., at a salary of \$2,500.

Mr. M. K. Weber, principal of the high school, Asheville, North Carolina, has been elected superintendent of city schools to succeed W. A. Anderson, Jr., at a salary of \$3,000.

Mr. H. L. Sullivan of Arcanum, O., has been elected superintendent of schools at Van Wert, at a salary of \$2,400.

Mr. A. G. Stead of Boyne City, Mich., has entered upon his duties as superintendent of schools at Manistee.

Mr. Charles H. Fullerton and Miss E. Marie Gugle have been reelected as assistants to the superintendent of schools at Columbus, O.

Mr. C. G. Persons of Pittsfield, Mass., has been elected superintendent of schools at Taunton.

Mr. I. S. King of Ithaca, Mich., has been elected superintendent of schools at Coldwater, to succeed T. E. Johnson who has become state superintendent.

Supt. J. W. Browning of Belvidere, Ill., has been re-elected for the next year, at an increased salary of \$2,400.

Mr. R. M. Morgan has been re-elected business manager of the board at Houston, Tex., for the next year.

Mr. Uhry McKenzie of Arkansas, has been elected superintendent of schools at Lake Charles, La.

Mr. F. C. Prowdley of Mounds, Ill., has been elected superintendent of the Carterville Community High School at Carterville, Ill.

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WEST DISINFECTION COMPANY  
NEW YORK

THE ONE-STORY RURAL CONSOLIDATED BUILDING.\*

(Continued from Page 39)

bring down the cost. The expense of adding more rooms to the structure when necessary is evidently much less than in case of a two-story building, and the resulting extensions make a harmonious building instead of a disfigurement. In general, the difference in expense is not great and any extra cost is more than justified in educational advantages to the country community.

8. *This ease of extensions* is a point particularly in favor of the one-story school. The high school rooms are not of the same size as elementary rooms, being usually smaller. Fewer rooms at first may be needed by the high school. But either wing may be any length without serious injury to the general plan. The auditorium or gymnasium, with perhaps a combined lunch room and library, may be erected after the first rooms if desired. In our plan we have sketched in shadow the outlines of extensions.

9. *The elimination of stair climbing* for teachers, pupils and patrons should receive separate mention here as a special advantage altho mentioned above.

10. *The greater ease of management* of each classroom and of the building as a whole is obvious. Where pupils are scattered over two or three floors of a building with the toilets probably in a basement the difficulty is great.

11. *The greater ease of using laboratories and workrooms* for both elementary and high school pupils is in favor of the one-story type.

12. *Educationally*, the rural building should be as close to outdoor life as possible. Here in the one-story plan the entire school and each classroom is close to nature and the latter is very easily reached without even entering the corridor. For nature study, gardening, botany,

agriculture, play and physical education the advantages are evident. In a two-story building teachers very infrequently, if ever, come down from the second or third floors to supervise and join in the play of the children. Where the playground is but a step outside hardly any person fit to be a teacher can keep from the joyous comradeship so helpful for both young and old. All teachers should go out frequently for the sake of themselves as much as the children. Our building tempts them into the open.

13. *Such a school building is easier to build* for the ordinary contractor obtainable in the country than a two or more story structure. If concrete is used and careful plans and perhaps molds are furnished, the specifications should not be hard to follow.

14. *Protected play spaces for the little children* are provided in the courts, or patios, on either side of the assembly group.

15. Other advantages of the one-story types would cover such items as freedom from danger or falling from second-story windows, ease of supervision of classroom and auditorium by the principal, freedom from carrying things up and down stairs, less danger in case of cyclones in the west, and others.

III. These, then, are some of the principal advantages to be sought and gained by the one-story rural consolidated school.

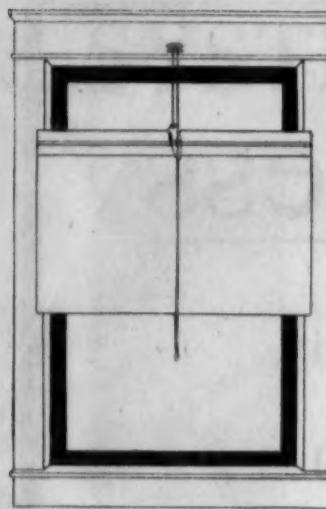
Some of the disadvantages might perhaps be greater heat of classrooms in summer than for first-floor rooms of two-story buildings, greater difficulty in forcing heat and air horizontally instead of upward from a basement as in a two-story building, greater distance of travel in going thru the halls altho this is cut down by shorter classrooms and a cross corridor from wing to wing between auditorium and gymna-

sium, and perhaps others to be discovered by experience. That the advantages far outweigh the disadvantages seems to be beyond question and we have no doubt that the one-story type will be the prevalent one for country and village schools of the future. We may confidently expect great developments of this type of building in the next two decades. No object is better worth study, a large use of money, and careful experimentation, than to provide a rural, social and educational center not only for children and youth but for all people of a community. On such centers the future of rural life largely depends. Unfortunately, we cannot depend much today on the country or city newspaper for social and political reform. Public discussions and cooperative activities as well as a new type of rural education for children and youth, in thousands of schoolhouses are the greatest hope of lovers of Democracy today.

Wonderful is the spirit of cooperation and growth,  
The consolidating of interests and the hopes of man,  
Ideal is the vision of the new rural life,  
But it needs must secure a structure and plan.

Denver, Colo. The school board has adopted a teachers' salary schedule and provisions governing the qualifications of teachers who enter the service. The rules provide that an applicant for a position in the senior high school shall hold an academic degree from a college and shall have had at least 27 months' accredited experience in school work. Preference will be given to those who have had professional training.

Miss Leonore Taft, for several years superintendent of schools in the Longmeadow, Mass., school district, died July 23, at the age of 51. Miss Taft was a graduate of the University of Maine and Columbia University.



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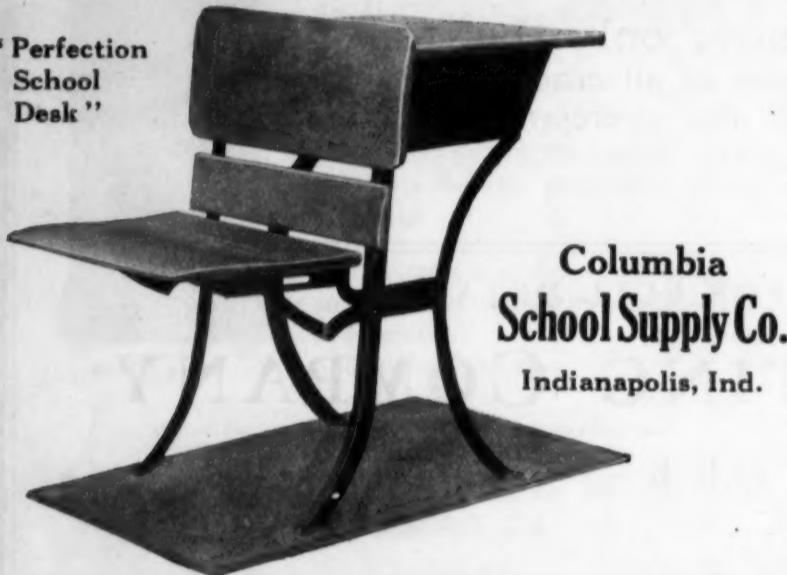
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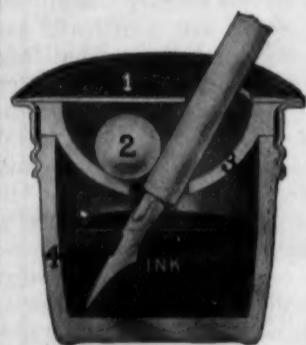


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Geography			
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(Continued from Page 45)

required, tends to reduce the amount of experience demanded—often such cities require no experience. In some of the southern cities where salaries tend to be low no experience is required. Such facts make it evident that local conditions prevent uniformity in the amount of experience demanded and suggest that local practice is governed by the available supply of teachers.

The amount of experience demanded for eligibility to teach in the high school is much better standardized than the amount demanded for teaching in the elementary schools. Of 27 superintendents reporting, two report no experience demanded; five, one year of experience; nineteen, two years of experience; one, five years of experience. These figures make it clear that two years of teaching experience is the usual requirement for eligibility to teach in the high school—an amount that is one year more than is usually required for eligibility to teach in the elementary school.

The city of Seattle does not conform to the general practice throughout the country but requires two years of experience for eligibility to teach in the elementary school—an amount one year in excess of the usual requirement—and one year of experience for eligibility to teach in high school, an amount one year less than the usual requirement. Thus in Seattle the requirement is just the reverse of the usual one, but the school officials do not see fit to change this regulation.

The amount of experience demanded for meeting the eligibility requirement means time added to that required for making the educational preparation, and at first thought it might seem

that difference in the amount of experience demanded for eligibility should have some influence upon the determination of the initial differential. But upon further consideration it is manifest that while a teacher is obtaining whatever experience is demanded for meeting the eligibility requirements, be it one or five years, she is drawing a salary and in whatever city she teaches, experience as such is getting its appropriate reward in the form of increases in salary. Consequently experience as a factor in the determination of the initial differential should have no consideration because the real problem of the influence of experience on the initial differential reduces itself to a consideration of the two years of additional preparation required for eligibility to teach in the high school—time which is devoted to study and which is spent without salary—and this factor has been evaluated in a previous section.

### THE ANDOVER HIGH SCHOOL

(Continued from Page 55)

planned to house four hundred students, has a severely plain exterior of brick and limestone. The basement contains the domestic science department, boys' and girls' coat rooms and toilets. On the first floor there are five standard classrooms, two recitation rooms, a study hall, a library and administrative offices. The last mentioned adjoin the main entrance and include rooms for the superintendent, for the school board, for the principal, for the teachers and space for storage records, etc.

The second floor accommodates three classrooms, a study hall, two commercial rooms, two laboratories and a lecture room for science and several storage rooms.

The new building is connected with the old structure by means of a covered passageway.

The first floor of the old building contains four classrooms and a large manual training shop. On the second floor there is a large assembly hall, which serves not only for the school but which is the second community hall in Andover and is used frequently for civic and social center purposes. It is planned by the school authorities to ultimately remove the partitions and floors of the classrooms and corridors on the first floor and to convert the space into a gymnasium. The floor of the assembly hall will then be carried on steel girders and the basement of the annex will be rearranged with dressing rooms, showers, etc.

The old building has been entirely refinished and repainted and the toilet and other facilities have been replaced with modern equipment of the best school type.

The plant cost, with the changes and improvements in the old building, \$100,000.

The architects are Messrs. Fisher, Ripley & Le Boutillier, Boston Mass.

### SCHOOLROOM HYGIENE AND SANITATION.

The Bureau of Medical Inspection of the Chicago health department, in a recent examination of 17,445 school children, listed 65 per cent who have physical defects and are in need of treatment. The school nurses in their daily visits found more than 13,000 pupils in need of medical attention and thousands of calls were made for instruction and advice.

The public schools of Battle Creek, Mich., have been made the recipients of a piece of land for an athletic field. The ground which was formerly owned by Mr. C. C. Beach has been given to the schools in consideration that it be improved and given the name of the Beach Memorial Field.

The grounds will be open during the noon hour to the men of the nearby factory who have formerly made use of it for baseball purposes.

A dental clinic has been established at Allerton, Mass., for the school children of Hull.



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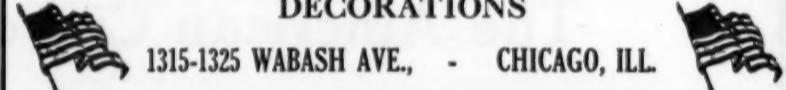
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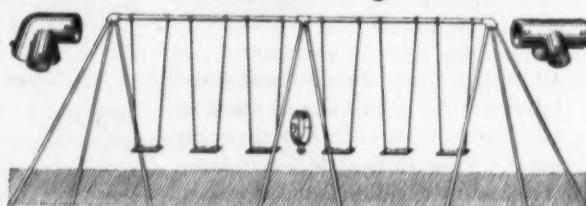
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THE NATIONAL CRAYON COMPANY  
WEST CHESTER, PA.

## TEACHER PARTICIPATION IN SCHOOL ADMINISTRATION.

(Concluded from Page 31)

vote of the council has been disregarded, both it and the administration have suffered; but where its work has been effective both have gained strength and confidence. I believe that it is thru the administration's trusting to the judgment of the council, even if there must sometimes be mistakes, that the council can be an institution of value and a real help toward getting our schools out of the old autocratic, dictatorial, prussian style of administration into the far more difficult but far more worthy plan of operation by which initiative and courage are developed in the teaching corps, and the whole force works together with one single aim—the development of the finest type of free American citizen.

## MR. ALDERMAN ASSUMES DIRECTION OF NAVAL EDUCATIONAL WORK.

Mr. L. R. Alderman, formerly superintendent of schools at Portland, Ore., and more recently a member of the educational commission with the army in France, has recently been appointed in charge of the educational work for the United States Navy at a salary of \$5,000 per annum.

Mr. Alderman was born in Oregon, the son of an early pioneer who came to the west in the early forties. He is a graduate of McMinnville College and of the University of Oregon.

After his graduation, Mr. Alderman taught school at Halsey and at Brownsville, Ore. He left Brownsville to become assistant superintendent at McMinnville, and a year later was made superintendent. After four years of service, he resigned to become superintendent of schools in Yamhill County. He was superintendent of schools at Eugene, state superintendent of instruction for the state, and superintendent of schools at Portland.

## Personal News of Superintendents.

Mr. Charles S. Culver, assistant superintendent of schools at Atlanta, Ga., has resigned to engage in business for himself. Mr. Culver is succeeded by Mr. Joseph C. Little.

Dr. W. W. Charters, dean of the School of Education of the University of Illinois, has accepted a position in the Carnegie Institute, Pittsburgh, at a salary of \$8,000 a year. Dr. Charters will have charge of the research work of the Institute.

Mr. Oliver S. Westcott, for 52 years connected with the Chicago Public Schools, died at his home in Oak Park, Ill., at the age of 85. Mr. Westcott was for 31 years principal of the old North Division High School, now known as the Waller School. He was the last surviving member of the class of 1856 of Brown University.

E. R. Ray, for many years one of eighteen supervising principals of the Indianapolis public schools, has been made assistant to E. U. Graff, superintendent of schools. Mr. Ray's old position will not be filled. His new salary is \$3,500 a year.

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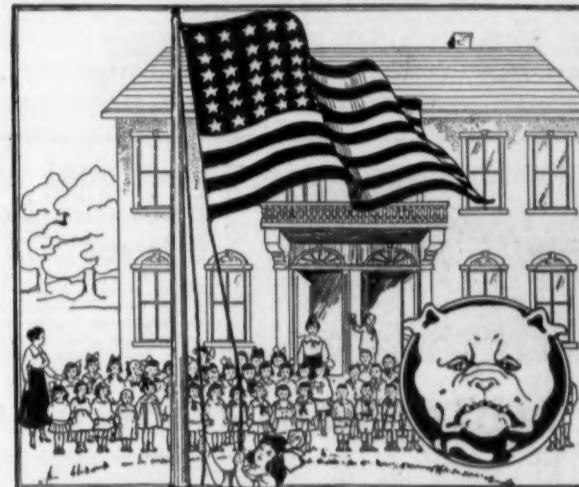
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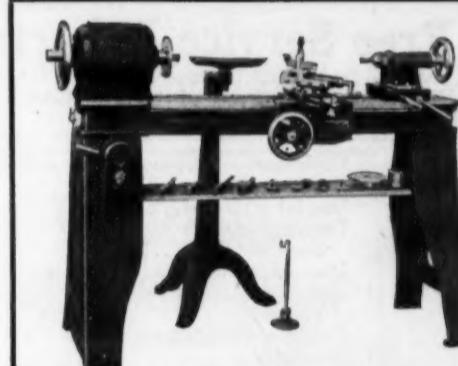


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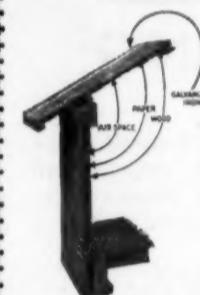
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He will be required to give his whole time to the duties of the office, such duties to include, *inter alia*, the general control of the Training Colleges and of the Normal Schools (two at present) connected therewith. He will, with the concurrence of the University College, act as professor or lecturer on education at the Auckland University College. He will not be at liberty to undertake any other tuition or educational work of any kind whatever.

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Applications must be made on printed forms, which may be obtained from Hon. P. P. Claxton, United States Commissioner of Education, Department of the Interior, Washington, D. C., and must be accompanied by a certificate from a registered medical practitioner of the applicant's physical fitness for the position.

E. C. Purdie, Secretary,  
Education Board,  
Auckland, New Zealand,  
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Installations ranging from 200 to more than 5000 now making good in Schools.

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## QUESTIONS AND ANSWERS

This Department is conducted as a personal service for the readers of the Journal. Questions on school board problems, especially on the physical side of school administration, will be answered as promptly as possible by the department editors. Only such questions will be printed as seem to be of general interest. Address correspondence to Editor, School Board Journal, Milwaukee, Wis.

### Standing Committees on Boards.

51. Q.—The board of which the writer is a member consists of seven persons. For several years the work of the board has been done as a committee of the whole, and I believe has been satisfactorily done. There are no standing committees and it is now proposed to appoint sixteen committees, each member to be a chairman of one committee and a member of two others, with the president ex-officio a member of each. We question the wisdom of this change.

It is unnecessary for me to enumerate what seem to me the arguments against this method of administration, but I am eager to learn and would like to know individually of books, magazines and articles that will help.—E. C.

A.—It has been our opinion that boards of education having a membership of three, five or seven, should conduct their business without standing committees. My conclusions have been based on observation of boards of education with whom I have come in contact in various sections of the country.

The tendency seems to be for committees to greatly increase their power and to act as individual boards in charge of a part of the business which the entire board of education should study and act upon. A board of seven members can sit as a committee of the whole and can discuss all important matters of policy of the professional executives of the board—the superintendent and the business manager. When there are five or six committees it is inevitable that they will encroach upon the work of the executive and will go beyond the proper functions of a school board.

There are, of course, situations where a committee organization is desirable. These situations are largely the result of precedent and local opinion which have grown up thru years of practice in local school conduct. When such a situation exists, not more than two committees are needed in my estimation. One of these can look after all the educational affairs and the other can limit itself to the business and financial affairs. The organization of six committees is, to my mind, altogether unnecessary. It is inevitable that there is a duplication of effort and time and energy.

Below are quotations from a number of prominent reports on school administration bearing on this point. It is rather remarkable that not a single authority of any consequence favors committee organization such as is proposed by a member of the inquirer's board.

"How many and what committees a board should have may depend to a certain extent upon local conditions and upon the size of the board, but in general a board composed of seven or fewer members, needs no standing committees. If the superintendent is given the power due in preparation of the school budget, in the selection of teachers, and in the general professional and business administration of the schools, he seldom needs the assistance of a committee. A board of five, six or seven members can discuss and pass upon the recommendations of the superintendent as well as a committee of three. When the work is done by committees, there is usually but little discussion by the entire board; one part of the board may be entirely ignorant of what another part is doing. If there are any committees, their attention should be directed chiefly to the business affairs of the board. In a board of from five to nine members, two committees could easily look after the business of the board—a committee on finance and accounts and one on buildings and grounds."—Public School Administration in Smaller Cities, pp. 20-22, W. S. Deffenbaugh. Bulletin No. 44, 1915, U. S. Bureau of Education.

"All of these cases of over-activity on the part of board members and board committees, arise from a confusion as to what the members were elected to do. In the exercise of its legislative

functions, the board will need few, if any, standing committees.

If the board is small, say five or seven, action can be taken better as a whole, all committees being purely temporary. In any case, three committees will be sufficient for even a large board, namely a committee on educational affairs, a committee on business affairs, and a committee on buildings and finance."—Quoted from The Appointment of Teachers in Cities, pp. 121-122. Frank W. Ballou, Harvard University Press, Cambridge, Mass.

The few members of a standing committee play altogether too large a part in the decisions of the board, as shown by the fact that (1) more than eighty per cent of the committees are minority committees, and (2) the reports of committees whether large or small, thru necessity, are seldom discussed by the whole board. The committee organization permits the exercise of pernicious influences, because (1) of the prevailing method of appointment of members by the president of the board, because (2) of its closed meetings, and because (3) it is easier to deal unscrupulously with a small committee than it is with a whole board.

The committee system violates four principles of effective administration, as follows: (1) The duties of each committee cannot be clearly defined, because the functions of committees overlap, due to the fact that committees are usually organized according to no known principle of organization. (2) This makes it impossible to fix the responsibility of each committee, because no one knows just what its duties are. (3) The absence of any well-defined responsibilities makes it impossible to hold the committee responsible for its acts. (4) The committee system tends to confuse lay control with professional and executive management, because the prevailing practice is to refer the discharge of executive functions to committees of the board rather than to the board's professional executives. For these reasons the practice of boards of education of organizing into standing committees for the transaction of their business must be condemned."—Quoted from The Appointment of Teachers in Cities, pp. 121-122. Frank W. Ballou, Harvard University Press, Cambridge, Mass.

The inevitable result of such an arrangement is frequent and long committee meetings, much discussion, and board meetings often lasting until late at night. The constant tendency under such a system of administration is for the committees to become very important administrative bodies, and for the chairman of each to usurp some or many of the functions of the executive heads of departments. Especially is this likely to prove dangerous in the case of the committee on teachers and school work, the chairman of which is very likely, almost unconsciously, to take over many of the functions that properly belong to the superintendent of schools and to become, as it were, a second head of the educational department; passing, in turn, on all the superintendent's recommendations as to teachers, principals, and supervisory officers, and substituting his opinion or the opinion of his committee for that of the superintendent as to the employment, retention, and service of members of the educational force.—Quoted from School Organization and Administration, pp. 26-28. Ellwood P. Cubberley. World Book Co., Yonkers, N. Y.

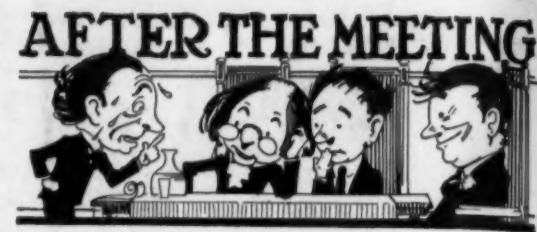
The committee form of control. The most common means by which mismanagement and interference with the technical and professional functions of the experts of the school department comes is thru the attempt of such boards to manage the schools by means of a large number of standing committees. Committees commonly exist, such as those on courses of study, textbooks, instruction, and promotions and grading, which simply cannot exercise intelligently any of the functions usually assigned to such bodies. The work attempted by such committees involves professional knowledge and judgment which no city board of education, either as a body or thru a committee, ought ever to try to assume.—Quoted from Public School Administration, p. 112. Ellwood P. Cubberley. World Book Co., Yonkers, N. Y.

### Homer Revised.

The sixth-grade class in reading had followed Ulysses thru several years of wandering. Then the teacher asked:

"What was Penelope doing all this time?"

Louis answered, solemnly: "Well, every day she and her maids spun and wove all day; and every night Penelope raveled out all the cloth they had woven during the day. Finally she said to those suitors, 'I won't marry any of you fellows till I get this sweater done'."—Harper's.



### Picnic Was Off.

Babs' uncle met her in the street one day, and asked her whether she was going out with a picnic party from her school.

"No," replied the 8 year old niece, "I ain't going!"

"My dear," said the uncle, "you must not say 'I ain't going.' You must say, 'I am not going!'"

And he proceeded to give her a little lesson in grammar.

"You are not going. He is not going. We are not going. They are not going. Now, can you say all that?"

"Oh, yes!" responded Babs heartily. "There ain't nobody going!"

### Evidence.

"Has Jim come home from school yet, Mary?" asked his mother.

"I think so, ma'am," said Mary. "The cat's hiding in the cellar."

### Inherited.

Teacher (to boy whose excuse she has found to be a forgery): But what does your mother say to such dreadful lies?

Boy: She says I take after father.

### A Sporting Proposition.

A teacher in one of Philadelphia's public schools made arrangements last summer to take a couple of her boy pupils each week to the large farm of a relative in Chester County. The boys were required to get up at an early hour and help with the lighter duties about the farm.

On the first Sunday in September Danny Mullen, age eleven, arrived at the farm. On Monday morning before daybreak he was awakened by one of the farmhands.

"What's the idea of gettin' up in the middle of the night?" said Danny.

"Hurry up!" said the other. "I'll show you how to milk cows."

Danny sat up with a puzzled expression on his face, gazed thoughtfully out into the darkness, then asked: "Do you have to sneak up on them?"

### English Schoolboy Howlers.

The minister of war is the clergyman who preaches to the soldiers at the barracks.

After twice committing suicide, Cowper lived till 1800, when he died a natural death.

Much butter is imported from Denmark because the Danish cows have a greater enterprise and superior technical education to ours.

The courage of the Turks is explained by the fact that a man with several wives is more willing to face death than if he had only one.

To all of which we may add an American schoolboy's recent statement: Patrick Henry said, "I rejoice that I have but one country to live for."



"I never saw a woman who wasn't curious."  
"But I'm not the least bit curious, Professor."  
"Then you are a curious woman."

O. F. V.  
A...

Oliver  
L. O.  
Aerosh  
Waiger  
Pecan  
Hamilton  
...

F. S. B.  
Gillis &  
A...

Peabod  
Americ  
N. J.  
Heywo  
Empire  
Superior  
Steel P.  
BLA...

N. Y.  
Beaver  
E. W.  
Weber  
BLA...

Keenan  
Penka  
Natural

Internat  
Smith  
Kswan...

Holden  
Peckha...

Gregg  
D. C.  
Isaac  
Silver  
Americ  
Arthur  
Macmil  
A. N.  
Ginn &  
Educ...

Theo. P.  
CAT  
Chicago  
Albert

Weber  
A. J. M.

Water  
F. L. P.

Central  
Stand...

CLO  
Hygien...

Binney  
Americ  
Peckha...

E. W.  
Weber  
Natio...

Samuel  
DES...

Wayne

Union

W. M.  
Metrop...

Educa...

Theo. P.  
DOM...

E. H.  
Kewau...

C. Chr...

Leonar...

Feder...

Albert

Columb...

Norton

DRAF...

E. H.

C. Chr...

Devoe

# School Goods Directory

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C. F. Williams & Son, Inc.

## ADJUSTABLE WINDOW SHADES

Oliver C. Steele Mfg. Co.

L. O. Draper Shade Co.

Aeroshade Company

Waiger Awning Co.

Perennial Shade Company

Hamilton Manufacturing Co.

## AIR CONDITIONING APPARATUS

American Blower Co.

Moline Heat.

## ARCHITECTS

(See Pages 80 and 81)

## ASH HOISTS

F. S. Payne Co.

Gillis & Geoghegan

## AUDITORIUM SEATING

Peabody School Furniture Co.

American Seating Co.

N. J. School Furniture Co.

Heywood Bros. & Wakefield Co.

Empire Seating Co.

Superior Seating Co.

Steel Furniture Co.

Theo. Kundtz Co.

## BLACKBOARDS—COMPOSITION

### TION

N. Y. Silicate Book Slate Co.

Beaver Board Companies

E. W. A. Rowles Co.

Weber Costello Co.

## BLACKBOARDS—NATURAL SLATE

Keenan Structural Slate Co.

Penina. Struct. Slate Co.

Natural Slate Blackboard Co.

## BOILERS

International Heater Co.

Smith System Heating Co.

Keweenaw Boiler Co.

## BOOK COVERS

Holden Patent Book Cover Co.

Peckham, Little & Co.

## BOOK PUBLISHERS

Gregg Publishing Company

D. C. Heath & Co.

Isaac Pitman & Sons

Silver, Burdett & Co.

American Book Co.

Arthur J. Barnes Pub. Co.

Macmillan Company

A. N. Palmer Co.

Ginn & Company

Educational Publishing Company

D. Appleton & Company.

## BRUSHES

Theo. B. Robertson Products Co.

## CAFETERIA EQUIPMENT

Chicago Hardware Foundry Company

Albert Pick & Co.

## CHARTS

Weber Costello Co.

A. J. Nystrom & Co.

## CHEMICALS

Central Scientific Co.

## CLOCKS

Standard Electric Time Co.

## CLOSET BOWL CLEANSERS

Hygienic Products Co.

## CRAYONS

Binney & Smith

American Crayon Co.

Peckham, Little & Co.

E. W. A. Rowles Co.

Weber Costello Co.

National Crayon Co.

Jos. Dixon Crucible Co.

## DEAFENING QUILT

Samuel Cabot

## DESK SURFACING MACHINE

Waywell Chappell & Co.

## DICTIONARY STANDS

Union School Furnishing Co.

## DIPLOMAS

W. M. Welch Mfg. Co.

Metropolitan Supply Co.

Educational Supplies Co.

## DISINFECTANTS

Theo. B. Robertson Products Co.

## DOMESTIC SCIENCE EQUIPMENT

E. H. Sheldon & Co.

Keweenaw Mfg. Co.

C. Christiansen

Leonard Peterson & Co.

Federal Equipment Co.

Albert Pick & Co.

Columbia School Supply Co.

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Norton Door Check Co.

## DRAFTING ROOM FURNITURE

E. H. Sheldon & Co.

C. Christiansen

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Devos & Raynolds

## DRINKING FOUNTAINS

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Imperial Brass Mfg. Co.

United Pump & Power Co.

H. Mueller Manufacturing Co.

Waterman-Waterbury Co.

## ELECTRIC COOKING EQUIPMENTS

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## ELEVATORS

F. S. Payne Co.

## ENGRAVINGS

Premier Eng. Co.

## ERASERS

Weber Costello Co.

Jos. Dixon Crucible Co.

## ERASER CLEANERS

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## FIRE EXTINGUISHERS

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Sargent & Co.

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Otto Bielefeld Co.

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Annin & Co.

John C. Dettra & Co.

"Old Glory" Mfg. Co.

American Flag Co.

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## FLOOR DEAFENING

Samuel Cabot

## FOLDING PARTITIONS

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## FURNACES

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Waterman-Waterbury Co.

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Superior Seating Co.

Steel Furniture Co.

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Theo. Kundtz Co.

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Waterman-Waterbury Co.

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Amer. Fdry. & Furn. Co.

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Devos & Raynolds

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Palmolive Company

Albert Pick & Co.

H. Channon Co.

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Keweenaw Mfg. Co.

Leonard Peterson & Co.

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Holophane Glass Company

Beardslee Chandelier Mfg. Co.

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##

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apolis, shown above, until the faulty equipment was taken out and replaced with a modern "Standard" system, changing a costly experiment into a decidedly useful and valuable equipment.

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